

EXHIBIT 16

UNITED STATES DISTRICT COURT
DISTRICT OF NEW JERSEY
CIVIL ACTION NO. 13-7871 (FLW)(TJB)

KIMBERLY COLE, ALAN COLE, JAMES MONICA, LINDA BOYD,
MICHAEL MCMAHON, RAY SMINKEY, JAMES MEDDERS, JUDY
MEDDERS, ROBERT PEPERNO, SARAH PEPERNO, AND KELLY MCCOY,
ON BEHALF OF THEMSELVES AND ALL OTHERS SIMILARLY
SITUATED,
PLAINTIFFS

V.

NIBCO, INC.,
DEFENDANT

IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE OF TENNESSEE
NASHVILLE DIVISION
DISTRICT JUDGE WAVERLY D. CRENSHAW, JR.
MAGISTRATE JUDGE BARBARA D. HOLMES
CASE NO. 3:15-cv-1124

CHAD MEADOW, JOHN AND SUSAN PLISKO AND KENNETH
MCLAUGHLIN, INDIVIDUALLY AND ON BEHALF OF ALL OTHERS
SIMILARY SITUATED,
PLAINTIFFS

V.

NIBCO, INC.,
DEFENDANT

DEPONENT: RANDY DOERING
DATE: JANUARY 18, 2017
REPORTER: CRYSTAL HAVENS

Page 2	Page 4
<p>1 APPEARANCES</p> <p>2</p> <p>3 ON BEHALF OF THE PLAINTIFFS, KIMBERLY COLE, ALAN COLE,</p> <p>4 JAMES MONICA, LINDA BOYD, MICHAEL MCMAHON, RAY SMINKEY,</p> <p>5 JAMES MEDDERS, JUDY MEDDERS, ROBERT PEPERNO, SARAH</p> <p>6 PEPERNO, AND KELLY MCCOY, ON BEHALF OF THEMSELVES AND</p> <p>7 ALL OTHERS SIMILARLY SITUATED:</p> <p>8 KYLE A. SHAMBERG</p> <p>9 LITE, DEPALMA, GREENBERG, LLC</p> <p>10 211 WEST WACKER DRIVE, SUITE 500</p> <p>11 CHICAGO, ILLINOIS 60606</p> <p>12 TELEPHONE NO.: (312) 750-1592</p> <p>13 E-MAIL: KSHAMBERG@LITEDEPALMA.COM</p> <p>14</p> <p>15 ON BEHALF OF THE PLAINTIFFS, CHAD MEADOW, JOHN AND SUSAN</p> <p>16 PLISKO AND KENNETH MCLAUGHLIN, INDIVIDUALLY AND ON</p> <p>17 BEHALF OF ALL OTHERS SIMILARY SITUATED:</p> <p>18 LAWRENCE DEUTSCH</p> <p>19 BERGER & MONTAGUE, P.C.</p> <p>20 1622 LOCUST STREET</p> <p>21 PHILADELPHIA, PENNSYLVANIA 19103</p> <p>22 TELEPHONE NO.: (215) 875-3000</p> <p>23 FACSIMILE NO.: (215) 875-4604</p> <p>24 E-MAIL: LDEUTSCH@BM.NET</p> <p>25</p>	<p>1 INDEX</p> <p>2 Page</p> <p>3 DIRECT EXAMINATION BY MR. SHAMBERG 7</p> <p>4 EXAMINATION BY MR. DEUTSCH 166</p> <p>5 CROSS EXAMINATION BY MR. KUHLMAN 267</p> <p>6 RE-EXAMINATION BY MR. DEUTSCH 270</p> <p>7 RECROSS EXAMINATION BY MR. KUHLMAN 272</p> <p>8</p> <p>9</p> <p>10 EXHIBITS</p> <p>11 Page</p> <p>12 COLE</p> <p>13 1 2010 E-MAIL WITH DAVID BOBO 47</p> <p>14 2 PEX PIPE DEVELOPMENT STRATEGY, JANUARY 28, 59</p> <p>15 2009</p> <p>16 3 E-MAIL WITH KEN MCCOY 107</p> <p>17 4 OCTOBER 2012 130</p> <p>18 5 PERFORM Q A 2008 136</p> <p>19 6 LETTER WRITTEN BY DOERING 150</p> <p>20 7 WARRANTY 153</p> <p>21 8 E-MAIL WITH KEN MCCOY 163</p> <p>22</p> <p>23 MEADOW</p> <p>24 44 ORGANIZATION CHART, 2009 167</p> <p>25 45 ORGANIZATION CHART, 2012 171</p>
Page 3	Page 5
<p>1 APPEARANCES (CONTINUED)</p> <p>2</p> <p>3 ON BEHALF OF THE DEFENDANT, NIBCO, INC.:</p> <p>4 KEVIN M. KUHLMAN</p> <p>5 LATHROP & GAGE LLP</p> <p>6 2345 GRAND BOULEVARD, SUITE 2200</p> <p>7 KANSAS CITY, MISSOURI 64108-2618</p> <p>8 TELEPHONE NO.: (816) 460-5714</p> <p>9 FACSIMILE NO.: (816) 292-2001</p> <p>10 E-MAIL: KKHUHLMAN@LATHROPGAGE.COM</p> <p>11</p> <p>12</p> <p>13</p> <p>14</p> <p>15</p> <p>16</p> <p>17</p> <p>18</p> <p>19</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>	<p>1 EXHIBITS (CONTINUED)</p> <p>2</p> <p>3 46 E-MAIL WITH THOMAS COE 197</p> <p>4 47 E-MAIL WITH GREG LEHMAN 199</p> <p>5 48 E-MAIL OCTOBER 7, 2011 203</p> <p>6 49 E-MAIL OCTOBER 27, 2011 204</p> <p>7 50 E-MAIL MARCH 6, 2012</p> <p>8 58 E-MAIL DECEMBER 23, 2008 225</p> <p>9 59 FEB 1, 2011 E-MAIL CHAIN 229</p> <p>10 60 MAY 18, 2011 NIBCO LETTER 239</p> <p>11 61 E-MAIL CHAIN 244</p> <p>12 62 E-MAIL CHAIN "TALKING POINTS" 250</p> <p>13 63 OCTOBER 24, 2012 LETTER 256</p> <p>14 64 E-MAIL CHAIN 261</p> <p>15 65 E-MAIL CHAIN 263</p> <p>16 66 LEBANON FACILITY STANDARD OPERATING 264</p> <p>17 PROCEDURES</p> <p>18 67 NIBCO HISTORY WITH CHRISTIANSON PLUMBING 265</p> <p>19 AND NIBCO DOCUMENT</p> <p>20</p> <p>21</p> <p>22</p> <p>23</p> <p>24</p> <p>25</p>

STIPULATION

The deposition of RANDY DOERING taken at HILTON GARDEN INN & SUITES, 2734 CRITTENDEN DRIVE, LOUISVILLE, KENTUCKY 40209 on WEDNESDAY, the 19TH day of JANUARY 2017 at approximately 9:00 a.m.; said deposition was taken pursuant to the FEDERAL Rules of Civil Procedure. It is agreed that CRYSTAL HAVENS, being a Notary Public and Court Reporter for the State of KENTUCKY, may swear the witness.

A Yes.
 Q How many times?
 A Two or three times.
 Q Okay. Did any of those depositions relate to your employment at NIBCO?
 A Yes.
 Q All of them?
 A Yes.
 Q Did any of the depositions relate to PEX products that were manufactured or sold by NIBCO?
 A Yes.
 Q Okay. Which -- tell me about the first deposition that related to those PEX products?
 A I think the first deposition was a case, I believe it was in Oklahoma.
 Q Okay. What were the allegations in that case, as you understand it?
 A I'm -- that -- that the product was defective. That was the allegation, yes.
 Q And what about the other case that you mentioned that involved the NIBCO PEX products?
 A That was maybe a year-and-a-half ago or so, and it was similar -- a similar case.
 Q Okay. Was that a case that was brought against NIBCO by Christianson Plumbing?

PROCEEDINGS

COURT REPORTER: Sir, if you'll raise your right hand for me, please?

THE WITNESS: Yes.

COURT REPORTER: Do you solemnly swear or affirm the testimony you're about to give will be the truth, the whole truth, and nothing but the truth?

THE WITNESS: I do.

DIRECT EXAMINATION

BY MR. SHAMBERG:

Q Good morning, Mr. Doering.

A Good morning.

Q My name is Kyle Shamberg, and I represent the plaintiffs in the Cole versus NIBCO matter.

A Okay.

Q We'll be asking you some questions this morning.

A Okay.

Q Could we start out by having you state your full name and your date of birth for the record?

A Randy Dean Doering. I was born XX-XX-XXXX.

Q Okay. And have you ever given a deposition before?

A I believe so, yes.
 Q And I believe you actually -- that deposition was here at the same hotel; is that right?
 A That is correct. Yes.
 Q Was it in the same room?
 A Yes.
 Q And what was your understanding of the allegations in that Christianson case?
 A I -- I don't remember all the specifics.
 Q Okay. Was the plaintiff in that case alleging that NIBCO PEX tubing was defective?
 A I believe so, yes.
 Q Do you remember what the specific defect the plaintiff was alleging was?
 A No. I don't remember the specific defects. I -- all I know is that they had experienced some failures.
 Q Okay. Were those failures oxidated?
 A I don't know.
 Q Do --
 A I -- I -- as I recall, I believe there was some installation issues involved in that. I don't believe that they were all oxidated failures.
 Q Okay. Why do you believe that they were installation issues involved? Where do you get that?

Page 10

1 A Installation? Just -- just some things that I
2 had heard after, you know, we had investigated the
3 complaint.

4 Q Do you recall what the outcome of that case
5 was?

6 A No, because I have not worked for NIBCO for a
7 year, and I -- I -- I don't know what happened.

8 Q So it's still ongoing with NIBCO?

9 A I believe so, yes.

10 Q To your understanding?

11 A Yeah.

12 Q Okay. So I want to talk about some of the
13 ground rules that you've probably heard before in
14 previous depositions --

15 A Uh-huh.

16 Q -- but we'll go over again today. The first
17 is that when you give your answers, I'll try to let you
18 finish your answer.

19 A Okay.

20 Q When I ask my questions, if you could let me
21 finish my question, that'll make a cleaner record for
22 Crystal so it'll be clear; is that all right?

23 A That's fine.

24 Q Okay. And you're doing a good job so far, but
25 I'll ask that you answer all the questions verbally

Page 11

1 rather than by nodding your head or shaking your head or
2 gesturing so it's also clear on the record --

3 A Okay.

4 Q -- what your answer is, okay? If you don't
5 understand any of my questions, just let me know, --

6 A Okay.

7 Q -- and I'll try to rephrase it or clarify. If
8 you answer the question, I'll assume that you understood
9 it, okay?

10 A Okay.

11 Q And also, we can take a break at any time.
12 Just let myself or Kevin know. But if I have a question
13 pending, I'd like you to answer that question before we
14 take the break, all right?

15 A Okay.

16 Q Okay. What's the highest education level
17 you've received?

18 A I hold a Master's in Business Administration
19 at Indiana University.

20 Q Okay. What year did you receive that
21 master's?

22 A It was 19 -- I guess I should know this.
23 1988.

24 Q 1988?

25 A Yes.

Page 12

1 Q Okay. And what about a bachelor's degree, do
2 you have a bachelor's degree?

3 A Yes.

4 Q What area of study?

5 A Political Science is my major. A --

6 Q It that --

7 A Bachelor of Arts at Indiana, yes, University.

8 Q I'm sorry. I'm already breaking my own rule
9 by trying to cut you off. What year did you get the
10 bachelor's degree?

11 A 1976.

12 Q Okay. So after the bachelor's degree, you
13 were working for a while, and then you went back and did
14 the master's?

15 A Yes. I was working for a company that had
16 given me a promotion, and then they offered to pay for
17 me to get a -- to continue my education.

18 Q What company was that?

19 A Industrial Plastics Corporation.

20 Q When did you start working for Industrial
21 Plastics Corporation?

22 A 1979.

23 Q Okay. And when you started in 1979, what was
24 your role there?

25 A I was a quality control inspector.

Page 13

1 Q What were the job responsibilities of a
2 quality control inspector?

3 A I would measure plastic parts and, you know,
4 just make sure that it was meeting in our standards.

5 Q Okay. And back in 1979, that quality control
6 inspector role wouldn't have involved PEX products; is
7 that right?

8 A It did not.

9 Q What was the next job you had at Industrial
10 Plastics?

11 A I was a pricing manager. I was responsible
12 for the pricing of our products.

13 Q Okay. How long did you do that for?

14 A I did that for about four years.

15 Q Okay. So you were the quality control
16 inspector beginning in 1979 until about when?

17 A Until about 1983.

18 Q '83. Okay. And then the pricing manager from
19 about '83 to '86?

20 A '83 to '87.

21 Q Okay. And was it at that point you went back
22 into the master's program?

23 A Yes.

24 Q Were you still working while you were enrolled
25 in the program?

Page 14

1 A Yes.
 2 Q As a pricing manager?
 3 A Yes.
 4 Q When you completed the master's program --
 5 after you completed the master's program, what was the
 6 next role that you had, if any, at Industrial Plastics?
 7 A I was a marketing manager.
 8 Q Okay. How long were you the marketing manager
 9 for?
 10 A I think two years.
 11 Q And what were the job -- general job
 12 responsibilities as marketing manager?
 13 A New product development and the promotion on
 14 new products.
 15 Q Any PEX products?
 16 A No.
 17 Q After you -- so now we're about 1990 or so?
 18 A Yes.
 19 Q What did you do after you became marketing
 20 manager?
 21 A I became plant manager at Industrial Plastics
 22 Corporation.
 23 Q When did that happen?
 24 A That happened around 1990.
 25 Q Okay. And how long were you the plant

Page 15

1 manager?
 2 A I was a plant manager for about four years,
 3 until 1994.
 4 Q Okay. And what sort of products was the plant
 5 manufacturing at that point?
 6 A This company made custom plastic extrusions,
 7 none of them were PEX products or tubing products.
 8 Q When did you start at NIBCO?
 9 A I started at NIBCO in 1999.
 10 Q Okay. From the time -- well, you said you
 11 were a plant manager until around 1994?
 12 A Uh-huh.
 13 Q At Industrial --
 14 A Yes.
 15 Q -- Plastics?
 16 A Yes.
 17 Q Did you have another role in Industrial
 18 Plastics after that?
 19 A No. I left the company, and I started working
 20 for a company called Elkhart Plastics in 1996.
 21 Q Between the time when you were at Elkhart
 22 Plastics in '96 or so and you began at NIBCO in '99, did
 23 any jobs you had in that timeframe involve PEX products?
 24 A None.
 25 Q When you began at NIBCO in 1999, what was your

Page 16

1 role?
 2 A I was product managers for Kentrol, which is
 3 our schedule AD product line.
 4 Q How long were you in that role for?
 5 A I was in that role for two years.
 6 Q Okay. Until about 2001?
 7 A Correct.
 8 Q And, again, not working with PEX products; is
 9 that correct?
 10 A Not working with PEX.
 11 Q In 2001, what job did you take at that point?
 12 A I was product manager for plastic fittings at
 13 NIBCO.
 14 Q Was NIBCO manufacturing plastic fittings at
 15 that time?
 16 A Yes.
 17 Q Okay. Was NIBCO also -- are you familiar with
 18 the term "sourcing"?
 19 A Not at that time.
 20 Q Okay. You're familiar with the term?
 21 A Yes.
 22 Q But NIBCO wasn't sourcing plastic fittings at
 23 that time?
 24 A They -- they were sourcing plastic fittings.
 25 They were not sourcing any PEX products at that time.

Page 17

1 Q How long were you the product manager?
 2 A From 1991 to --
 3 Q Sorry, 2000 -- 2001?
 4 A 2001 to 2006.
 5 Q During that timeframe from 2001 to 2006, did
 6 you have any involvement with PEX products at NIBCO?
 7 A Yes.
 8 Q What was that involvement?
 9 A In 2002, I started researching PEX, the PEX
 10 market. And in 2004, we started selling PEX on a
 11 private label basis.
 12 Q In 2002, when you said you started researching
 13 the PEX market, what kind of research did you do?
 14 A It involved market penetration with the
 15 competitive landscape, what would it take for NIBCO to
 16 get into that business.
 17 Q What, if any, conclusions did you reach based
 18 on the research that you did?
 19 A I believed that we should get into that
 20 business.
 21 Q Why?
 22 A Because the -- well, several reasons. Copper
 23 systems were losing market share to PEX because of cost
 24 and the shortage of labor.
 25 Q Okay. You said in 2004, NIBCO started selling

Page 18

1 PEX products under a private label?

2 A Yes.

3 Q From whom was NIBCO acquiring the product
4 itself?

5 A We were buying the tubing from Consolidated
6 Plumbing Industries, and we -- I don't recall all of the
7 different sources for the fittings and ancillary
8 products, but there were several other vendors of
9 fittings and connections and all the accessories that go
10 with a PEX system.

11 Q Okay. And you say you don't recall who the
12 manufacturer was of those fittings?

13 A I believe that we were buying some of them
14 from Consolidated Plumbing Industries and some from
15 other sources as well.

16 Q Okay. But you don't recall who the other
17 sources were --

18 A No.

19 Q -- at this point?

20 A No. I believe that one of them was a company
21 called Sioux Chief.

22 Q Okay. And we'll get a little bit more into
23 that, but I first want to finish up kind of what you did
24 with roles in NIBCO up until you left.

25 A Okay.

Page 19

1 Q So you said you were the product manager until
2 2006. In 2006, how did your role change?

3 A I became national sales manager of retail at
4 retail sales at NIBCO.

5 Q Okay. Was that for all products?

6 A Yes.

7 Q Including PEX?

8 A Yes.

9 Q But also others?

10 A Correct.

11 Q And just generally what were your day-to-day
12 job responsibilities as national sales manager?

13 A My duties were, you know, selling our products
14 to -- I had retail customers assigned to me that I was
15 responsible for growing their -- our business with them.

16 Q How long were you the national sales manager?

17 A Two years.

18 Q So then in 2008, how did your role change
19 again?

20 A I became general manager of PEX piping systems
21 at NIBCO.

22 Q Okay. So in 2008 as general manager, you're
23 focused exclusively on PEX products?

24 A Yes.

25 Q How long were you in that role?

Page 20

1 A I was in that role until December of 2014.

2 Q And so during those six years or so, again, if
3 you just generally describe what your job
4 responsibilities were as general manager for PEX?

5 A Well, my responsibilities I oversaw the
6 selling of PEX, of the development of new products, the
7 marketing of PEX products. I also had responsibility,
8 not at the beginning for manufacturing, but then later I
9 was also responsible for -- for the plant itself and the
10 manufacturing. And I did have, you know, responsibility
11 for some of the shipping and distribution functions, you
12 know, of the product as well.

13 Q At what point did you also start to take on
14 the manufacturing aspect?

15 A That was in 20 -- 2012.

16 Q Why did you -- why did that become your
17 responsibility at that point?

18 A Before I was general manager, but the plant
19 manager of the PEX plant reported to someone else in our
20 organization more in a functional alignment. But we
21 wanted to bring the PEX business together, and the
22 company wanted me to move to the Cincinnati area where
23 the PEX plant was located so that I'd be closer to that
24 and -- and, you know, help in the oversight of that
25 plant.

Page 21

1 Q Okay. Who was in charge of overseeing the
2 manufacturing operations for PEX before you took over
3 that role?

4 A It was Chris Mason.

5 Q Chris Mason, okay. And you touched on it a
6 little bit, but a decision was made around 2012 to shift
7 that responsibility from Chris to you?

8 A Yes.

9 Q Did Chris leave NIBCO at that time?

10 A No.

11 Q What did Chris do at that point? How did his
12 job change?

13 A Well, Chris was vice president of supply
14 management, and he -- when we acquire companies or the
15 assets of companies he's usually involved in the
16 integration of those companies into NIBCO. And so his
17 role had pretty much, you know, ended. And then they
18 wanted me to take over, you know, the -- to just bring
19 the business together under one manager.

20 Q Okay. So they kind of wanted to have one
21 person overseeing all of the operations for the
22 business?

23 A Correct.

24 Q That person was you?

25 A Yes.

Page 22

1 Q So at least for the PEX products, it was sort
2 of the buck stopped with you; is that fair?

3 A Yes.

4 Q Who -- well, so this question may be too
5 general, may be more than one person, but from 2008
6 until 2014, you were the general manager for PEX. Who
7 did you report to?

8 A I reported to Steve Malm.

9 Q Steve Malm, okay. What was his title at this
10 time?

11 A President.

12 Q Is he still with NIBCO?

13 A Yes.

14 Q So you reported directly to Steve. There was
15 no one kind of in between you?

16 A Correct.

17 Q How many people were reporting directly to you
18 when you were general manager for PEX products?

19 A Oh, we had probably around 50 people at the
20 plant, and then we had three to four salespeople, a
21 product manager, and so I think that -- that's about it
22 there.

23 Q Okay. The product manager, was that Tom Coe?

24 A Yes.

25 Q And the salespeople, I believe one of those

Page 23

1 was Kate Emery?

2 A Yes.

3 Q Was Grant Dow one of those people?

4 A Yes.

5 Q Who else was reporting to you in sales?

6 A Well, Kate and Grant. We had -- I don't know.
7 There are a couple of other people, but their names
8 escape me right now.

9 Q Okay. And another thing I might have said
10 before is that this isn't necessarily a memory test.

11 A Sure.

12 Q It's what you know and what you remember. And
13 if those --

14 A Yeah.

15 Q -- names do --

16 A Yeah.

17 Q -- come to you, sometimes they do, --

18 A Yeah.

19 Q -- you know, let me know.

20 A Sure.

21 Q Let Larry --

22 A Sure.

23 Q -- know, and we'll clarify that.

24 A Okay.

25 Q How did your role change in December of 2014?

Page 24

1 A In December of 2014, I became general manager
2 of our industrial plastics division at NIBCO.

3 Q Okay. Does the industrial plastics division
4 relate to PEX products in any way?

5 A No.

6 Q Why did you make that move at that point?

7 A Well, they asked me if I would. The general
8 manager of industrial plastics had retired, and I had
9 been product manager when I -- of Kentrol, which was
10 part of industrial plastics when I first came to NIBCO,
11 and I was probably the likely candidate to move over and
12 run that business.

13 Q Did someone take over your role as general
14 manager of PEX at that point?

15 A Yes.

16 Q Who was that?

17 A Ashley Martin.

18 Q Any relation to Rex?

19 A His daughter.

20 Q So did you do anything to prepare for this
21 morning's deposition?

22 A Kevin and I spoke briefly yesterday.

23 Q Okay. And I obviously don't want you to tell
24 me anything that you discussed with Kevin, but about how
25 long did you speak?

Page 25

1 A I don't know. About an hour.

2 Q Did you review any documents?

3 A No.

4 Q Have you reviewed any of the transcripts of
5 any depositions that have been taken in this case?

6 A No.

7 Q Have you reviewed any summaries or digests of
8 those depositions?

9 A No.

10 Q Did you take any notes for yourself in
11 preparing for the deposition?

12 A Yes.

13 Q Okay. Do you have those with you?

14 A No.

15 Q Okay. Do you still have them somewhere in
16 your files?

17 A In my office.

18 Q Okay.

19 MR. SHAMBERG: Kevin, I would request that to
20 the extent those aren't privileged that they be
21 produced.

22 MR. KUHLMAN: I'll look into it.

23 BY MR. SHAMBERG:

24 Q Okay. So we'll go back now. You said in
25 about 2004 NIBCO began selling PEX tubing that was

Page 26

1 manufactured by CPI; is that accurate?
 2 A Yes.
 3 Q And was that sold under a brand name, trade
 4 name?
 5 A Yes.
 6 Q What was that name?
 7 A NEXT-Pure.
 8 Q NEXT-Pure. Were you involved in the project
 9 to begin selling that NEXT-Pure pipe that was purchased
 10 from CPI?
 11 A Yes.
 12 Q What was your involvement in that?
 13 A I led it.
 14 Q Okay. That's significant involvement. So
 15 describe for me generally what, you know, your
 16 responsibilities were in terms of leading that project?
 17 A Well, we had to find sources of the product,
 18 so I was responsible for finding, you know, companies
 19 that would sell a private label, you know, the products
 20 for us, deciding what products we're going to offer and
 21 which products we aren't going to offer. And then
 22 putting together the marketing plan, you know, pricing,
 23 selling, strategy, all of that.
 24 Q What investigation did you conduct to find the
 25 source of the product?

Page 27

1 A Well, we visited a number of different
 2 companies and -- and based -- our decision was based on
 3 those visits and those companies' willingness to work
 4 with us.
 5 Q Which companies did you visit?
 6 A We visited a company named Vanguard and a
 7 company in Canada in Quebec, and I -- I can't remember
 8 their name right now, and Consolidated Plumbing
 9 Industries.
 10 Q CPI makes a PEXc product, right?
 11 A Yes.
 12 Q And can you just generally describe for me
 13 your understanding of the differences between, say, a
 14 PEXa, PEXb, and PEXc product?
 15 A Sure. PEXa is -- it's typically called the
 16 peroxide method, where peroxide is exposed to the
 17 high-density polyethylene. It causes a -- a chemical
 18 reaction that leads to a cross-linking of the -- of the
 19 molecules. PEXb is the saline method. Again, a
 20 chemical is added to the polyethylene, but in this case,
 21 it's -- it's not added in directly during the
 22 manufacturing process, but the saline is compounded into
 23 the raw material itself, and the saline affects the
 24 chemical reaction that causes the cross linking of the
 25 -- of the molecules. With PEXc, it's called the EB

Page 28

1 method, and an electron beam is used to affect the
 2 cross-linking of the molecules in the high-density
 3 polyethylene. Typically, the EB mean is done in a
 4 secondary operation after the tubing has been extruded.
 5 Q Okay. Do you recall which type of PEX, which
 6 cross-linking method Vanguard was using in its tubing?
 7 A PEXb.
 8 Q And the Canadian company that you can't recall
 9 the name of, do you know which cross-linking method they
 10 were using?
 11 A Well, they were not producing PEX. They
 12 aspired to produce PEX and -- and would have made the
 13 investment to make PEX. Had we entered a relationship
 14 with them, they probably would have chosen -- they were
 15 looking at the time at PEXb, I believe.
 16 Q Has NIBCO, at any point, also sold a PEXb
 17 product?
 18 A Yes.
 19 Q During what timeframe has NIBCO told PEXb
 20 tubing?
 21 A I think since -- since the acquisition of the
 22 assets in 2006, they had been selling a PEXb product
 23 mostly for a radiant heat applications, radiant heat
 24 tubing, sometimes called barrier tubing.
 25 Q And when you say the acquisition in 2006,

Page 29

1 you're referring to the acquisition of CPI?
 2 A Yeah, the assets of CPI in 2006, yes.
 3 Q NIBCO also -- so NIBCO started selling PEXb in
 4 around 2006. Was it also manufacturing the PEX at that
 5 point?
 6 MR. KUHLMAN: Object to form.
 7 A We started selling PEXc in 2000 -- 2004, and
 8 we continued selling PEXb after the acquisition of the
 9 assets in May of 2006.
 10 Q Okay. I think you just said NIBCO was selling
 11 PEXc beginning in 2004, and then --
 12 A Oh, excuse me. I'm sorry. I -- PEX --
 13 selling PEXc since 2004, and then started selling PEXb
 14 for radiant heat applications in 2006.
 15 Q Okay.
 16 A I'm sorry.
 17 Q And was NIBCO manufacturing the PEXb when it
 18 began selling it?
 19 A No.
 20 Q Okay. What -- has NIBCO ever manufactured
 21 PEXb tubing?
 22 A Yes.
 23 Q When did NIBCO begin manufacturing its own
 24 PEXb tubing?
 25 A I believe that it was in -- around 2013.

Page 30	Page 32
<p>1 Q Okay. So certainly more recently --</p> <p>2 A Yes.</p> <p>3 Q -- than PEXc?</p> <p>4 A Yes.</p> <p>5 Q Why did NIBCO decide to begin manufacturing</p> <p>6 PEXb tubing in 2013?</p> <p>7 A I think it was just market driven, force of</p> <p>8 some of our customers wanted PEXb, and so we -- you</p> <p>9 know, we decided to offer that.</p> <p>10 Q So customers were specifically saying we</p> <p>11 prefer to buy the PEXb from you instead of the PEXc?</p> <p>12 A Yeah.</p> <p>13 Q Did they give reasons for why they preferred</p> <p>14 PEXb?</p> <p>15 A No. I think sometimes, if we would convert a</p> <p>16 customer from one type of PEX to another, if they had</p> <p>17 been buying from a company that was selling PEXb, you</p> <p>18 know, they wanted PEXb as a replacement and reasons like</p> <p>19 that.</p> <p>20 Q What -- let's say for the time period from</p> <p>21 2006 to 2014.</p> <p>22 A Yes.</p> <p>23 Q How did NIBCO's overall sales compare between</p> <p>24 PEXc and PEXb?</p> <p>25 A Well, most of our sales were in PEX -- PEXc. I</p>	<p>1 features, a little bit easier to handle than the PEXb.</p> <p>2 We thought it would be friendlier for plumbers to</p> <p>3 install, because it's less rigid and a little easier to</p> <p>4 bend. We were also -- I think that was -- that was the</p> <p>5 main reason, you know, we just thought it was a unique</p> <p>6 product. Takes a high capital investment to get into</p> <p>7 PEXc, so we thought that long term there wouldn't be,</p> <p>8 you know, as many, you know, competitors in that -- in</p> <p>9 that space.</p> <p>10 Q And you think, I think you said that it was</p> <p>11 friendlier for plumbers and easier to handle. So PEXc</p> <p>12 is easier to work with than the other PEX --</p> <p>13 A Yeah, it's easier to bend.</p> <p>14 Q Okay. Does that make it easier to install in</p> <p>15 plumbing applications?</p> <p>16 A Yeah, it can. It can, yes.</p> <p>17 Q When you were leading the team that was</p> <p>18 investigating different sources for potential PEX</p> <p>19 products, how did you end up landing on CPI?</p> <p>20 A Well, we -- we had been contacted by -- I</p> <p>21 think the way it originally happened, we had been</p> <p>22 contacted by one of their salespeople who wanted to sell</p> <p>23 us some of their fittings, and -- and we just started a</p> <p>24 relationship after that.</p> <p>25 Q Do you remember who the CPI salesperson was?</p>
Page 31	Page 33
<p>1 mean, that was most of what we sold, yes.</p> <p>2 Q Okay. And just for the PEX tubing, could you</p> <p>3 put a percentage on it in terms of what was PEXc versus</p> <p>4 PEXb.</p> <p>5 A Well, probably 90 percent of what we sold was</p> <p>6 -- was, you know, PEXc.</p> <p>7 Q So when NIBCO began -- in 2004, when NIBCO</p> <p>8 began sourcing from CPI and selling the PEXc under the</p> <p>9 NEXT-Pure brand?</p> <p>10 A Yes.</p> <p>11 Q Why was the decision made to go with a PEXc</p> <p>12 product over a PEXb or a PEXa product?</p> <p>13 A We thought that long term it would be the</p> <p>14 lowest cost potentially and would be -- give us a</p> <p>15 competitive advantage in the marketplace.</p> <p>16 Q Okay. So basically, you could offer a better</p> <p>17 price than competitors who were selling PEXb products?</p> <p>18 A Well, not -- the -- no. The pricing decision</p> <p>19 is independent of the cost. But, yeah, I mean, we</p> <p>20 thought we'd be more competitive in the marketplace if</p> <p>21 we did decide to, you know, offer a price that was lower</p> <p>22 than our competitors.</p> <p>23 Q Okay. Any other reasons that NIBCO went with</p> <p>24 the PEXc over the PEXb for the next year?</p> <p>25 A Yeah. The PEXc had some unique selling</p>	<p>1 A John Grunwald was his name, yes.</p> <p>2 Q And when the acquisition occurred in 2006, do</p> <p>3 you know if John Grunwald came along and joined NIBCO?</p> <p>4 MR. KUHLMAN: Object to form.</p> <p>5 A I don't remember. He left CPI, and I don't</p> <p>6 remember when he left.</p> <p>7 Q Okay. You don't recall if it was before or</p> <p>8 after the acquisition?</p> <p>9 A No, I don't remember.</p> <p>10 Q So after John made contact about the fittings</p> <p>11 and started the relationship, what investigation did you</p> <p>12 conduct into CPI prior to making the decision to source</p> <p>13 the PEX material from them?</p> <p>14 A Well, we -- we visited the facility, met with,</p> <p>15 you know, their team, talked about PEX in general. And</p> <p>16 then once we decided that -- that we wanted to partner</p> <p>17 with them, we started a process of testing their --</p> <p>18 their products to ensure that they met the applicable</p> <p>19 standards. And that is something that NIBCO would do in</p> <p>20 any sourcing decision.</p> <p>21 Q Okay. What testing did NIBCO perform on the</p> <p>22 CPI PEX products?</p> <p>23 A Well, I don't -- I don't remember all of them.</p> <p>24 But a lot of burst testing and long-term pressure</p> <p>25 testing. And there are tests that NIBCO has developed</p>

Page 34	Page 36
<p>1 through the years on all plumbing products that are --</p> <p>2 are effective in evaluating the -- you know, if the</p> <p>3 product meets the standards.</p> <p>4 Q And did NIBCO conduct any kind of testing</p> <p>5 related to the chlorine resistance of CPI's PEXc tubing?</p> <p>6 A I -- I don't know. I don't remember if we did</p> <p>7 or not.</p> <p>8 Q Okay. You don't recall seeing any test</p> <p>9 results specifically related to chlorine resistance at</p> <p>10 that time?</p> <p>11 A No. I can't -- I can't remember all of the</p> <p>12 tests that we did.</p> <p>13 Q Did CPI provide any documents to NIBCO</p> <p>14 evidencing third-party certifications for the PEXc</p> <p>15 product it was manufacturing?</p> <p>16 MR. KUHLMAN: Object to form.</p> <p>17 A I don't know. But all of that information's</p> <p>18 available, you know, online, though. If you go to NSF's</p> <p>19 site everyone's -- you know, if someone has a listing,</p> <p>20 it could be found there, or if you go to IAMPRO, it</p> <p>21 could be found there. So I don't know if we received</p> <p>22 anything from them, but its information that's readily</p> <p>23 available.</p> <p>24 Q Okay. Well, what about -- and I understand</p> <p>25 the fact that the listing would be publicly available,</p>	<p>1 understand what you're asking.</p> <p>2 Q Let me ask it -- let me ask it this way. Did</p> <p>3 you personally, at any point, become aware that CPI's</p> <p>4 PEXc tubing suffered from chlorine resistance problems?</p> <p>5 MR. KUHLMAN: Object to form.</p> <p>6 A We, as an industry, are aware of the effect of</p> <p>7 chlorine on all PEX products. So our knowledge, or at</p> <p>8 least the knowledge that I had at the time, was</p> <p>9 basically from attending industry meetings, PTFA</p> <p>10 meetings where -- and PTI meetings, the Plastic Pipe</p> <p>11 Institute, where we talked about issues involving PEX</p> <p>12 products. But from a general standpoint, not from a</p> <p>13 standpoint of vis-one manufacturer versus another.</p> <p>14 Q Okay. Let me try to be more specific. In</p> <p>15 your role as general manager for PEX products, were you</p> <p>16 made aware, at any point, that CPI's PEXc tubing had</p> <p>17 failed chlorine-resistance tests?</p> <p>18 A No.</p> <p>19 Q Okay. And then you said in 2006 NIBCO</p> <p>20 acquired CPI?</p> <p>21 A Yes.</p> <p>22 Q Okay. Was there separate -- was there a</p> <p>23 separate project initiated which NIBCO was actually</p> <p>24 considering acquiring CPI as opposed to just sourcing</p> <p>25 the products?</p>
Page 35	Page 37
<p>1 but in terms of either communications with third-party</p> <p>2 -- let's stay there are communications with third-party</p> <p>3 listing agencies, did CPI provide those?</p> <p>4 A I don't recall -- I don't recall any exchanges</p> <p>5 like that.</p> <p>6 Q What about test results that had been</p> <p>7 performed on CPI's PEXc tubing in order to meet the</p> <p>8 applicable standards? Was that provided to NIBCO?</p> <p>9 A I don't -- no, I don't believe so. But I -- I</p> <p>10 really don't remember.</p> <p>11 Q In that 2004 timeframe, and as the head of the</p> <p>12 project and looking to sourcing from CPI, were you made</p> <p>13 aware of any chlorine resistance issues with CPI's PEXc</p> <p>14 tubing?</p> <p>15 A No.</p> <p>16 Q Never came up?</p> <p>17 A I don't believe so. We're talking about 2004,</p> <p>18 correct?</p> <p>19 Q Yes.</p> <p>20 A No. No issues.</p> <p>21 Q Okay. Did NIBCO, at any point, become aware</p> <p>22 of potential chlorine resistance issues with CPI's PEXc</p> <p>23 tubing?</p> <p>24 MR. KUHLMAN: Object to form.</p> <p>25 A Can you restate that question? I don't</p>	<p>1 A Yes.</p> <p>2 Q Were you involved in that project?</p> <p>3 A Yes.</p> <p>4 Q In what capacity?</p> <p>5 A I conducted the due diligence of the sales and</p> <p>6 marketing.</p> <p>7 Q Okay. So what did that due diligence involve</p> <p>8 for sales and marketing?</p> <p>9 A I interviewed the sales manager, and we</p> <p>10 discussed, you know, how they went to market and the</p> <p>11 customer service function and just sales-related</p> <p>12 activities.</p> <p>13 Q Who was the sales manager at CPI at that time?</p> <p>14 A His name was Martin Compston.</p> <p>15 Q Okay. And do you recall if he came along with</p> <p>16 CPI in 2006 when NIBCO acquired it?</p> <p>17 A Yes.</p> <p>18 Q So did you discuss with Martin who some of</p> <p>19 CPI's customers were for the PEXc tubing at that time?</p> <p>20 A After the acquisition of the assets, yes.</p> <p>21 Q Okay. He was probably a little reluctant to</p> <p>22 give you that information before?</p> <p>23 A Yes.</p> <p>24 Q And did -- who were some of the customers that</p> <p>25 you can recall?</p>

Page 38

Page 40

1 A Well, CPI did sell to Menards stores, and they
2 sold to wholesale distributors. Mostly smaller
3 wholesale distributors in the United States.

4 Q Okay. Menards is sort of the big fish?

5 A Yeah, for them it was, yes.

6 Q Did -- after the acquisition in 2006, did
7 NIBCO retain Menards as a customer for the PEXc tubing?

8 A Yes.

9 Q Did NIBCO retain other CPI customers for PEXc
10 tubing?

11 A Yes.

12 Q Can you recall about -- let's start here. Do
13 you recall, at the time of the acquisition, about how
14 many customers CPI had for the PEXc tubing, if you
15 recall?

16 A I don't recall the exact number.

17 Q Okay. Do you know a ballpark?

18 A Probably, you know, over 100.

19 Q And do you recall about how many of those
20 customers NIBCO was able to retain after it purchased
21 CPI in 2006?

22 A No, I don't.

23 Q Is it more than half?

24 A I'm sure that we retained, you know, most of
25 them. But whenever there's a change in ownership, there

1 Q And do you remember about how many were
2 retained by NIBCO?

3 A Most of them were. I don't know -- remember
4 the exact number.

5 Q Okay. Aside from things that were duplicate,
6 like, HR and --

7 A Yes.

8 Q -- things like that?

9 A Uh-huh.

10 Q Did any of those employees who came from CPI
11 over to NIBCO have knowledge regarding product testing
12 of the PEXc tubing?

13 A I don't know.

14 Q Okay. Did you have any discussions with
15 anyone at CPI at the time of the acquisition regarding
16 the product testing for the PEXc tubing?

17 A Not at that time, no. Because I was -- I was
18 responsible -- I mean, I was part of the team, but we
19 had been busy with selling the product, you know, for a
20 couple of years, and it was just natural and not a lot
21 changed after the acquisition of the assets other than
22 making decisions about branding and coordination of
23 salespeople and those kind of fishes.

24 Q Okay. So it was still -- so CPI, let's say in
25 2005, was manufacturing the PEXc tubing in Lebanon,

Page 39

Page 41

1 can be some people that, you know, don't -- don't want
2 to deal with -- with a new -- a new company owning it.
3 So -- but I don't remember. I don't recall losing any
4 specific customers over that.

5 Q After the acquisition in 2006, did CPI
6 continue as a separate corporate entity for NIBCO?

7 A No.

8 Q Okay. Then they merged with NIBCO; is that
9 right?

10 MR. KUHLMAN: Object to form.

11 A After the acquisition of the assets, we --
12 there were certain functions between CPI and NIBCO that
13 were a duplication, accounting and customer service, and
14 so those were -- some of the people at the CPI
15 headquarters were -- you know, who were no longer needed
16 because we had those functions at NIBCO.

17 Q Were there any operations that continued to
18 function solely under -- strike that. After the
19 acquisition, did NIBCO retain CPI employees?

20 A Some, yes.

21 Q Do you know how many employees CPI had at the
22 time of the acquisition, ballpark?

23 A Oh, I'm sure there's probably around the same
24 number. There's probably, like, around 40. I would say
25 between the plant and the office people and --

1 Ohio, at that facility; is that right?

2 A Yes.

3 Q And continued to after the acquisition?

4 A Correct.

5 Q Okay. Was -- did NIBCO continue to use the
6 same equipment that CPI had been using, extruder?

7 A Yes. Yeah, that's what we bought.

8 Q Did the product change in any way after the
9 acquisition of CPI, the PEXc tubing product?

10 MR. KUHLMAN: Object to form.

11 A Not that I'm aware of.

12 Q Okay. So you were still using the same resin?

13 A I believe so.

14 Q Same recipe, basically, it just the print
15 stream was there; is that correct?

16 A If we're talking about the time of the
17 acquisition, everything was the same.

18 Q Yeah. And prior to the reformulation, I mean?

19 A Correct.

20 Q Do you know what happened to CPI's inventory
21 of the PEXc tubing at the time of the acquisition?

22 A We -- we continued to sell the tubing that had
23 the CPI brand on it. But at some point, we switched all
24 -- the manufacturer of all the tubing -- well, shortly
25 after the -- well, I can't remember exactly when we

Page 42	Page 44
<p>1 switched, but after May 2006, at some point after that, 2 I don't think it was that very first day, but shortly 3 after that, we started branding it as NIBCO. 4 Q Okay. So there was some period of time -- 5 A Yeah. 6 Q -- after the acquisition? 7 A Yeah. We continued. 8 MR. KUHLMAN: Object to form. 9 A Yeah. I don't remember exactly what happened 10 to that -- that inventory, if we -- we sold it or if we 11 just, you know, suspended it. I don't remember. 12 Q Okay. Who would have been responsible at 13 NIBCO for the decision as to how to disposition CPI's 14 inventory after the acquisition? 15 A I'm not sure who would be responsible for 16 that. I mean, Chris Mason was responsible for the 17 manufacturing, but I -- I don't know. I don't know. I 18 never thought about it at the time, so... 19 Q You weren't involved in that decision? 20 A No. 21 Q And we touched on this a little bit, but at 22 some point, did NIBCO reformulate the PEXc tubing it was 23 manufacturing? 24 A Yes. 25 Q When did that occur?</p>	<p>1 Q How did you reach that conclusion? 2 A Well, you know, we -- we saw a trend towards 3 more water recirculation systems, and some -- some 4 consumers and installers were offering water 5 recirculation in homes and, you know, we felt it was -- 6 from a market standpoint, that's something that we 7 needed. 8 Q So was it a market-driven decision? 9 A Yes. 10 Q Were customers coming to NIBCO and saying -- 11 well, let me backtrack for a second. So the PEXc tubing 12 that NIBCO was selling prior to the reformulation 13 project? 14 A Yes. 15 Q That was 1006 tubing, correct? 16 A Correct. 17 Q Okay. And can you just tell me briefly what 18 those integers signify? 19 A Okay. The -- well, the 1 -- the 1, I think 20 that -- I got to tell you, Kyle, it's been awhile since 21 I went through this, but it's just there's different 22 tests and -- that first number relates to the amount of 23 time that the water can be circulating in a system at -- 24 you know, in a home. 25 Q Okay. So it deals with the frequency of</p>
Page 43	Page 45
<p>1 A It occurred, like, around 2012 or '13. I 2 think maybe 2013 is -- as I recall. 3 Q Okay. It was only -- was the -- to date, has 4 the PEXc tubing only been reformulated once, or has it 5 occurred more than once? 6 A Just under -- under NIBCO, I believe just 7 once, yes. 8 Q To your knowledge, did NIBCO ever consider 9 reformulating the product again? 10 A Oh, since 2013? 11 Q Yes. 12 A I'm not aware of that. 13 Q What was your involvement in the reformulation 14 projects? 15 A Well, I was involved in the initial decision 16 that we should, you know, move ahead with it. That was 17 mostly my involvement, and then receiving reports from 18 our technical people and the progress they were making. 19 Q Okay. So there was a discussion at NIBCO as 20 to should we reformulate the product? 21 A Yes. 22 Q And you were involved in making that decision? 23 A That's correct. 24 Q Obviously, the decision was ultimately yes? 25 A Yes.</p>	<p>1 recirculation of water? 2 A Yes. 3 Q Okay. 4 A Uh-huh. 5 Q And what about the other numbers, if you 6 remember? 7 A Well, the last number, which is actually the 8 -- it's the last two numbers, 06 I believe is that 9 number, relates -- I'm trying to remember. It maybe 10 relates to the U -- no, I don't think it was U period. I 11 can't really remember what that -- what those last two 12 were. 13 Q Okay. Well, at the time you were general 14 manager for PEX would you have known? 15 A Yeah. Yeah. I've been away for -- for a 16 couple of years, so... 17 Q Do you recall now what the designation was for 18 the reformulated PEXc tubing? 19 A I believe it was 3308, I believe. 20 Q Okay. So that first number, then, really 21 includes the -- 22 A It's the -- the second number is the UV, yeah. 23 Q Okay. 24 A Yeah. 25 Q So were customers coming to NIBCO and saying</p>

<p style="text-align: right;">Page 46</p> <p>1 "We want a 3 rather than a 1?"</p> <p>2 A Well, I don't think it was as simple as that.</p> <p>3 I think that just we -- we may have been losing some</p> <p>4 business because they wanted something higher than -- I</p> <p>5 believe the 1 is a 25 percent recirculation. Customers</p> <p>6 wanted something higher than that.</p> <p>7 Q Aside from customers wanting better</p> <p>8 performance in recirculation systems, were there any</p> <p>9 other reasons that NIBCO decided to undertake the</p> <p>10 reformulation project?</p> <p>11 A I think that was the main reason. But I -- I</p> <p>12 think that, you know, any -- anything that you can do to</p> <p>13 make your product, you know, better is something good to</p> <p>14 do.</p> <p>15 Q How would reformulating the tubing have made</p> <p>16 it better?</p> <p>17 A Well, it's just, you know, obviously, if it</p> <p>18 has a higher recirculation value, it's going to have,</p> <p>19 you know, some appeal to -- you know, to people and a</p> <p>20 perception that it, you know, may be better.</p> <p>21 Q Okay. So it's really the perception that it</p> <p>22 may be better than -- rather than it being a physically</p> <p>23 better project?</p> <p>24 A Yeah, I think so. I think so, yeah.</p> <p>25 Q Was one of the reasons for the reformulation</p>	<p style="text-align: right;">Page 48</p> <p>1 this document that's been marked as Plaintiff's Doering</p> <p>2 1. And I want to focus on this e-mail, Wednesday, March</p> <p>3 31, 2010 from David Bobo to a number of people including</p> <p>4 yourself; do you see that e-mail?</p> <p>5 A Yes.</p> <p>6 Q Who's David Bobo?</p> <p>7 A David Bobo was the director of engineering at</p> <p>8 NIBCO.</p> <p>9 Q Director of engineering, okay. Was that his</p> <p>10 -- to your recollection, was that his title at the time</p> <p>11 that he would have written this e-mail in 2010?</p> <p>12 A I think so.</p> <p>13 Q Okay. And in this e-mail, he's describing</p> <p>14 some NSF NRT test results related to PEXc tubing; is</p> <p>15 that accurate?</p> <p>16 A Yes.</p> <p>17 Q Okay. Now, he mentions in his first paragraph</p> <p>18 that starts, "Good news." And the third line there he</p> <p>19 says, "We should now have the option of adding the NSF</p> <p>20 mark back into the print stream without risk." NSF is a</p> <p>21 third-party certifier, correct?</p> <p>22 A Yes.</p> <p>23 Q Do you know why the NSF mark had been removed</p> <p>24 from the tubing at some point prior to this</p> <p>25 communication?</p>
<p style="text-align: right;">Page 47</p> <p>1 project concern that the 1006 tubing would fail</p> <p>2 chlorine-resistance tests?</p> <p>3 A No, I don't believe so.</p> <p>4 Q Okay. No one ever described that to you as</p> <p>5 the reason or one of the reasons?</p> <p>6 A No. I mean, we -- we talked about, you know,</p> <p>7 chlorine resistance, and I think you want to do anything</p> <p>8 to make, you know, your product better, yes.</p> <p>9 Q When you say talked about chlorine-resistance</p> <p>10 problems, what kind of discussions were those?</p> <p>11 MR. KUHLMAN: Is that what you were referring</p> <p>12 to when --</p> <p>13 A No. I'm talking about -- well, you're saying,</p> <p>14 "Chlorine-resistant problem." I'm saying, you know,</p> <p>15 what can we do to make the product even more chlorine</p> <p>16 resistant. It wasn't -- as I recall, it wasn't a</p> <p>17 reaction to problems. It was a reaction to make -- you</p> <p>18 know, an opportunity to make the product better.</p> <p>19 Q Okay. I'm going to show you a document.</p> <p>20 A Sure.</p> <p>21 (EXHIBIT 1 MARKED FOR IDENTIFICATION)</p> <p>22 Q So I'll have some questions about it. If you</p> <p>23 could please take a minute and just review the document.</p> <p>24 A Uh-huh.</p> <p>25 Q Okay. All right. So I want to ask you about</p>	<p style="text-align: right;">Page 49</p> <p>1 A No, I don't.</p> <p>2 Q Okay. You weren't a part of the discussions</p> <p>3 at that time in terms of removing the NSF mark from the</p> <p>4 print stripe?</p> <p>5 A You know, I'm not sure, Kyle. You know,</p> <p>6 there's, you know, a lot of testing that's been done --</p> <p>7 that's done periodically and, you know, I was -- I kept</p> <p>8 in the loop, but I'm not -- you know, I wasn't part of</p> <p>9 all the details. I basically, you know, let my</p> <p>10 engineers, you know, handle these matters.</p> <p>11 Q So in this e-mail, Mr. Bobo says that the NSF</p> <p>12 DLT tests report and confirm that the testing had been</p> <p>13 completed with the half-inch blue DURA-PEX pipe, and it</p> <p>14 conformed with the STMFA-76; is that fair? Fair</p> <p>15 description of what it says?</p> <p>16 A Yes.</p> <p>17 Q And he says, "As such, our listing should be</p> <p>18 relatively safe within this after the next three years?"</p> <p>19 A Uh-huh.</p> <p>20 Q "We should now have the option of adding NSF</p> <p>21 mark back into the print stripe?"</p> <p>22 A Uh-huh.</p> <p>23 Q Does that -- does reading this e-mail make you</p> <p>24 believe that the NSF mark was removed based on concerns</p> <p>25 that NSF would no longer certify the product?</p>

<p style="text-align: right;">Page 50</p> <p>1 MR. KUHLMAN: Object to form.</p> <p>2 A There's a -- you know, there's a number of</p> <p>3 reasons why an NSF mark might be taken off temporarily,</p> <p>4 and -- and so I -- I don't know exactly what the reason</p> <p>5 was in this instance.</p> <p>6 Q And what's your understanding of what David is</p> <p>7 saying in this e-mail in terms of the listing being</p> <p>8 relatively safe? Why do you think it was relatively</p> <p>9 safe?</p> <p>10 MR. KUHLMAN: Object to form.</p> <p>11 A I guess what he's saying is we passed the</p> <p>12 test, and we don't have to get retested for another</p> <p>13 three years is what -- is how I read it.</p> <p>14 Q And he goes on in the next paragraph -- (Knock</p> <p>15 at door.)</p> <p>16 MR. KUHLMAN: Let's go off the record for a</p> <p>17 second.</p> <p>18 (OFF THE RECORD)</p> <p>19 BY MR. SHAMBERG:</p> <p>20 Q Okay. So we're still looking at this Exhibit</p> <p>21 , and I'm just going to ask a couple more questions</p> <p>22 about it. Referring you back to David Bobo's March 31st</p> <p>23 e-mail letter. In the second full paragraph, he says</p> <p>24 that, "The half-inch half pipe continued to exhibit a</p> <p>25 large range of test results." And then it says that,</p>	<p style="text-align: right;">Page 52</p> <p>1 A Well, I think that we -- you know, we -- we</p> <p>2 made a decision to reformulate, and David Bobo or some</p> <p>3 people in the technical area may have had some concerns</p> <p>4 about testing and testing protocol. But, you know, the</p> <p>5 -- there's a difference between, you know -- there's a</p> <p>6 difference between having a material that can -- can be</p> <p>7 tested and -- and any, you know, quality concerns that</p> <p>8 you may have about a product.</p> <p>9 Q Okay. Can you explain that a little bit? I'm</p> <p>10 not sure. You said that --</p> <p>11 A Well, I'm -- you know, I'm probably getting</p> <p>12 too far into this than I should, but there -- within our</p> <p>13 industry there's been a lot of controversy about the --</p> <p>14 the validity of all this testing. So when you -- and so</p> <p>15 some of the discussions here within our company, you</p> <p>16 know, also involved concerns for our entire industry</p> <p>17 about, you know, the test that was being done, and does</p> <p>18 it truly evaluate how good a product is or not. I'm not</p> <p>19 the technical guy, so I don't know all the specifics of</p> <p>20 it, but I know that at this time, you know, everyone in</p> <p>21 our industry had concerns about the testing protocols.</p> <p>22 Q Do you know at this time, say in 2010, who was</p> <p>23 performing the testing for third-party certification for</p> <p>24 NIBCO, for the PEXc tubing?</p> <p>25 A In 2010, no, I -- I don't recall.</p>
<p style="text-align: right;">Page 51</p> <p>1 "That range of test results reinforces our need for the</p> <p>2 reformulation project." Does that indicate to you that</p> <p>3 the test result that NIBCO was receiving related to the</p> <p>4 PEXc tubing indicated that the product needed to be</p> <p>5 reformulated?</p> <p>6 MR. KUHLMAN: Object to form.</p> <p>7 A Well, you know, I entrusted David Bobo and our</p> <p>8 insurance staff to, you know, take care of these things,</p> <p>9 to manage, you know, the product, the technical aspects</p> <p>10 of the product, particularly when it's involved -- it</p> <p>11 involved testing with -- within itself. And so you</p> <p>12 know, I don't have a window in his mind why, you know,</p> <p>13 he -- he stated that.</p> <p>14 Q Did Mr. Bobo ever come to you while you were</p> <p>15 the general manager of PEX products and say, "The test</p> <p>16 results that we're getting show that we need to</p> <p>17 reformulate the PEXc tubing?"</p> <p>18 A I don't recall specific -- anything specific</p> <p>19 like that. You know, we -- we would have meetings where</p> <p>20 we'd talk about these matters and then, you know, make,</p> <p>21 you know, decisions as a group on the way to proceed</p> <p>22 based on the recommendation of our technical team.</p> <p>23 Q Did anyone on the technical team ever tell you</p> <p>24 that the test results were indicating that the product</p> <p>25 needed to be reformulated?</p>	<p style="text-align: right;">Page 53</p> <p>1 Q Okay. At any point in time do you know who</p> <p>2 was performing that testing for NIBCO?</p> <p>3 A Well, we've -- we've -- I mean, we've had</p> <p>4 testing done by a number of different sources. NSF,</p> <p>5 IAPMO, Jana Labs, they all did testing for us, yes.</p> <p>6 Q Okay. Let's start with Jana Labs. Is Jana</p> <p>7 Labs a well-regarded testing laboratory?</p> <p>8 MR. KUHLMAN: Object to form.</p> <p>9 A Well, I don't -- what do you mean by</p> <p>10 "well-regarded"?</p> <p>11 Q Are the results of its testing considered</p> <p>12 valid within the industry?</p> <p>13 A I think -- I think that they're a laboratory.</p> <p>14 I mean, they're certified. They're probably the largest</p> <p>15 plastic tubing laboratory in the world. So you know,</p> <p>16 many people use them.</p> <p>17 Q Do you have any reason to doubt the veracity</p> <p>18 of Jana's testing on NIBCO's products?</p> <p>19 A I have no basis for doubting the accuracy of</p> <p>20 their testing.</p> <p>21 Q Has NIBCO ever sold PEXc tubing that failed to</p> <p>22 pass the chlorine-resistance test?</p> <p>23 A Not to my knowledge.</p> <p>24 Q Would NIBCO ever do that?</p> <p>25 A No. Well, I mean, if it's been passed by NSF,</p>

<p style="text-align: right;">Page 54</p> <p>1 I mean, NSF makes the decision whether, you know, they 2 have the listing or not. I mean, you can even -- and I 3 believe at one point we even had listing with NSF and 4 IAPMO, so -- but NIBCO wouldn't sell anything that we 5 felt, you know, did not -- wasn't capable of meeting a 6 standard. 7 Q If NIBCO PEXc tubing was certified by a third- 8 party listing agency, but that same tubing had failed a 9 chlorine-resistance test, would NIBCO sell that tubing? 10 MR. KUHLMAN: Object to form. 11 A I -- I don't know. The -- you know, typically 12 you have testing done and then share that testing with 13 the listing agency and then they make those decisions. I 14 mean, our industry's very regulated. We aren't making 15 those decisions. The listing agencies are making those 16 decisions based on the test data. So it's entirely 17 possible for them to look at a test and say, "Well" -- 18 you know, and take that -- that data and make a decision 19 on whether it meets the standards for that product. But 20 that's typically their responsibility to do that, you 21 know, otherwise companies could do anything they wanted. 22 Q Okay. So let me ask you this hypothetical. 23 You're the general manager for PEX. And a salesperson 24 comes to you and says, "All right, Randy, we got this 25 order, a big order from a big customer for our 1006 PEX</p>	<p style="text-align: right;">Page 56</p> <p>1 A It's -- well, I'm not exactly sure, but I 2 think it's, like, a temporary listing for your product. 3 Q Okay. It's, I guess, set to last for a 4 certain amount of time that would be shorter than your 5 normal certification? 6 A No. Again, that was -- this is not my area of 7 expertise, so you know, I don't -- I don't know exactly 8 what it is. 9 Q So maybe I'm boiling this down too much, but 10 as general manager of PEX, your job was essentially to 11 sell PEX products, right? 12 A Yeah. I mean, to sell it, you know, manage 13 the -- the operation. But when it came to the standards 14 and the certifications, you know, it's very complicated 15 as you can see from going through all the e-mails you've 16 probably read and, you know, we had technical teams that 17 dealt with these issues as far as the listings. 18 Q But you had -- so in that role, if you had 19 gone to Steve Malm and said, "I've doubled our revenue 20 for PEXc tubing sales last year," he'd probably be happy 21 with that, correct? 22 MR. KUHLMAN: Object to form. 23 A Yeah, I would be, too. 24 Q And I'm sure you'd be happy as well? 25 A Yes.</p>
<p style="text-align: right;">Page 55</p> <p>1 tubing?" 2 A Uh-huh. 3 Q "And it's been certified by NSF. We've got it 4 stamped on the print stream." But also tell you that 5 this tubing did not pass the chlorine-resistance test 6 when tested, even though it's been certified. Do you 7 sell that tubing to the customer? 8 MR. KUHLMAN: Object to form. 9 A Well, I don't think -- I mean, a situation 10 like that is never going to occur because, you know, NSF 11 takes the test results, and they make the decision 12 whether you meet the standard or not. 13 Q What if the -- what if that tubing had been 14 granted a -- granted certification based on a 15 provisional standard that was no longer operating at 16 that point? Would that change your answer to that 17 question? 18 MR. KUHLMAN: Object to form. 19 A I don't know. I don't know exactly what -- 20 what you mean by that. 21 Q Are you familiar with what a provisional 22 listing is with respect to third-party certification 23 agencies? 24 A Yeah, yeah, yeah. 25 Q What's a provisional listing?</p>	<p style="text-align: right;">Page 57</p> <p>1 Q But is it fair to say that in order to sell 2 that PEXc tubing, it needs to be certified by a third- 3 party agency, or is that not fair? 4 A It's -- listing are important, yes. 5 Q If the tubing was not certified by any agency 6 to the applicable ASTM standards, would you be able to 7 sell that tubing, practically speaking? 8 A Well, you -- you want to be listed by an 9 agency and, you know, these are decisions that, you 10 know, companies make and, you know, who you want to use. 11 There's some latitude among manufacturers on, you know, 12 who you want to use. Some will have multiple listing, 13 Canadian listings, US listing. You know, it just -- 14 just depends. 15 Q If NIBCO's PEXc tubing had no certification at 16 all, do you know any NIBCO customers, who if you went to 17 them and said, "Our tubing is not certified by any third 18 party in any country," would they purchase that tubing 19 from you? 20 A Well, I -- I don't know. You know, typically 21 an inspector at a house will look at the tubing, and I 22 don't know how closely they look at it. I mean, what 23 you're suggesting is a pretty big hypothetical 24 situation. So I don't -- I don't know what the impact 25 would be if you tried to sell tubing without a listing.</p>

Page 58

Page 60

1 Q NIBCO has never tried to do that, correct?

2 A No.

3 Q Do you believe that deciding not to certify
4 the tubing would negatively impact sales?

5 A Yeah, probably, yes.

6 Q So at least to a certain extent, having third-
7 party certification is going to at least improve sales
8 compared to not having the certification, correct?

9 A I think it's more just a ticket for entry, you
10 know, to -- to the game, I mean...

11 Q You kind of have to have it?

12 A Yeah. You have to have a third-party
13 certification from someone. Doesn't have to necessarily
14 be NSF, but someone.

15 Q So as the general manager of PEX, you were --
16 aside from trying to sell a good product, you were
17 trying to sell as much of the product as possible?

18 A Yes.

19 Q And part of what's necessary to do that is
20 having certification by some entity somewhere. But yet,
21 it sounds like what you're saying is in terms of all of
22 the details of that certification, you just left that in
23 the hands of the technical people?

24 MR. KUHLMAN: Object to form.

25 A You know, I was aware of what was going on at

1 we have here, is January 28, 2009. Do you believe it
2 would have been around that time that you would have
3 first seen this document?

4 A Yes.

5 Q Okay. And did you review the document at the
6 time you received it?

7 A Yes.

8 Q If you turn to page 3 of the document -- well,
9 first of all, before we get into that, this is a
10 document titled PEX Pipe Development Strategy with Jana
11 Laboratories that was written by David Bobo; is that
12 accurate?

13 A Yes.

14 Q All right. So then on page 3 there, in the
15 second full paragraph that begins, "At the time of
16 purchase," Mr. Bobo writes, "The original product
17 listings granted to CPI by NSF noted that certain
18 colors, red and orange do not meet the minimum criteria
19 50-year extrapolated line for chlorine resistant and
20 that the additional colors do not have a large margin of
21 safety when compared to the minimum requirements.
22 Subsequent testing has shown that the variation within
23 the product is such that our continued listing third-
24 party certification and our ability to sell product in
25 the marketplace is in jeopardy"; do you see that

Page 59

Page 61

1 -- at a higher level, but I didn't get involved in all
2 the details of it and where we were at with a particular
3 test or discussions our people may or may not have with,
4 you know, listing agencies. I mean, that was their
5 responsibility. You know, typically you don't get
6 nontechnical people involved with technical people in
7 these kind of things. They speak a different language.

8 Q And, again, none of the technical people that
9 worked for you at NIBCO came to you and said, "The
10 tubing that we're selling failed chlorine-resistance
11 tests"; is that right?

12 A I -- I don't recall anyone specifically coming
13 to me and saying we failed the test, yes.

14 Q Okay. We'll mark this document Exhibit 2.
15 I'll ask you some questions about it. This will be a
16 little bit more of a reading test than the last one.

17 A Okay.

18 (EXHIBIT 2 MARKED FOR IDENTIFICATION)

19 A Thank you. Okay.

20 Q Have you had a chance to review this document
21 that we've marked as Exhibit 2?

22 A Yes.

23 Q Have you seen this document before?

24 A Yes.

25 Q Okay. And the date, at least on the document

1 language?

2 A Yes.

3 MR. KUHLMAN: Object to form.

4 Q Does this change your previous answer at all
5 with respect to the reasons for the reformulation
6 project?

7 A Well, I -- I think that from a sales and
8 marketing -- what David Bobo is discussing here is the
9 ability to pass, you know, certain chlorine-resistance
10 tests, and I think that certainly addressing that was --
11 was part of the decision. From a sales and marketing
12 standpoint, though, you know, the change really was
13 driven by some market forces that we were -- that we
14 were seeing. We entrusted our technical team to, you
15 know, maintain the listing. So that, you know,
16 obviously, was, you know, a big -- a concern of theirs,
17 and it was part of the decision.

18 Q At the time that you saw this document in
19 early 2009, did the fact that certain products that
20 NIBCO was selling did not meet the minimum criteria for
21 chlorine resistance concern you?

22 MR. KUHLMAN: Object to form.

23 A I had no concerns about the quality of the
24 products that we were selling. The -- you know, like I
25 said before, there's been a lot of controversy in our

Page 62	Page 64
<p>1 industry over the validity of the testing that's being</p> <p>2 done, and it's such that even if the product is too</p> <p>3 good, it can fail tests, because it's based on a linear</p> <p>4 relationship. So I -- at this time, doing the things</p> <p>5 that we needed to do to maintain a listing were</p> <p>6 completely separate from the quality of the product that</p> <p>7 we were selling.</p> <p>8 Q What makes you believe that a product is a</p> <p>9 quality product even if it fails testing for third-party</p> <p>10 certification?</p> <p>11 MR. KUHLMAN: Object to form.</p> <p>12 A We sell -- at the time, we were selling</p> <p>13 anywhere from 50 to 75 million feet a year. Over a ten-</p> <p>14 year period, that's, you know, millions of feet, and we</p> <p>15 had very few issues in the field. In the field, the</p> <p>16 issues that we investigated were not because of the</p> <p>17 failure of the tubing itself. So I had high confidence</p> <p>18 in the quality of -- of the product in spite of the fact</p> <p>19 that there may have been some issues, you know, with the</p> <p>20 chlorine test and NSF.</p> <p>21 Q Why do ASTM standards exist?</p> <p>22 A Well, this is not my area of expertise, but</p> <p>23 ASTM standards typically are put together by an industry</p> <p>24 on a product so that there's some standardization.</p> <p>25 Q Standardization in terms of what?</p>	<p>1 Certifications"?</p> <p>2 A Uh-huh.</p> <p>3 Q And in the sentence that begins on this page,</p> <p>4 goes onto the next page, "The reports from these tests</p> <p>5 show that failing to marginally acceptable (depending</p> <p>6 upon resin and color) results were obtained by CPI with</p> <p>7 both the current resin from Total as well as sample</p> <p>8 resins from Equistar. NIBCO is currently producing and</p> <p>9 selling PEX pipe with the following test results and</p> <p>10 listings as transferred from CPI." And then there this</p> <p>11 sort of chart and the chart indicates that the red and</p> <p>12 orange had a result of fail for the chlorine resistant</p> <p>13 test; is that what the document says?</p> <p>14 MR. KUHLMAN: Object to form.</p> <p>15 A Yes, but it also has an asterisk that says,</p> <p>16 "It is theorized that although unacceptable results were</p> <p>17 obtained for the red and orange colors, the dependent</p> <p>18 listing was granted due to the relative newness of the</p> <p>19 standard."</p> <p>20 Q Okay. And those dependent listings were</p> <p>21 granted to CPI in 2005; is that correct?</p> <p>22 A I don't know when they were granted.</p> <p>23 Q Okay. If we turn quickly just to page 9, the</p> <p>24 next page in the document. There's a table here labeled</p> <p>25 "Chlorine Resistance Testing Timeline"; do you see that?</p>
Page 63	Page 65
<p>1 A Of -- of -- of the properties of the product.</p> <p>2 Q Okay. And you also said the pipe industry is</p> <p>3 a heavily-regulated industry?</p> <p>4 A Yes. Yeah, they regularly came to our plant</p> <p>5 without notice and took samples and took them back to</p> <p>6 the lab and tested them, and we never failed a single</p> <p>7 test. So there, again, that's another reason why I</p> <p>8 didn't get too concerned about, you know, these issues</p> <p>9 in this memo.</p> <p>10 Q Do you know whether a third-party entity ever</p> <p>11 conducted testing on red pipe that NIBCO was</p> <p>12 manufacturing?</p> <p>13 A Well, I don't know. In this report, I think</p> <p>14 it said that some testing had been done on red pipe, so</p> <p>15 I guess some testing had been done.</p> <p>16 Q Okay. The testing referenced in this report</p> <p>17 showed that the red pipe had failed the test, correct?</p> <p>18 MR. KUHLMAN: Object to form.</p> <p>19 A Yeah, but I think -- I think it -- I mean, it</p> <p>20 didn't impact the listing, though. NSF had made -- I</p> <p>21 don't know the exact reason, but NSF had gone ahead and</p> <p>22 approved it.</p> <p>23 Q Okay. So yeah, on that point, would you turn</p> <p>24 to page 7 of the document? And sort of towards the</p> <p>25 bottom it says, "Section 3.5 CPI and NIBCO History of</p>	<p>1 A Yes.</p> <p>2 Q And if you look in the -- at the left there's</p> <p>3 a colored column that has years in it and there's a</p> <p>4 section for the year 2005. Towards the bottom of that</p> <p>5 section there's a red arrow pointing to the date 11-05;</p> <p>6 do you see that?</p> <p>7 A Yes.</p> <p>8 Q Okay. And then that appears to be a PEXc</p> <p>9 product manufactured with the Total resin, and it has</p> <p>10 failures listed for the red and the orange pipe; do you</p> <p>11 see that?</p> <p>12 A Yes.</p> <p>13 Q Okay. So based on that information, does that</p> <p>14 lead you to believe that the dependent listing was</p> <p>15 provided for the red and orange pipe sometime around</p> <p>16 2005?</p> <p>17 A This is what the report says.</p> <p>18 Q So the dependent listing was granted at the</p> <p>19 time due to the relevant -- relative newness of the</p> <p>20 standard.</p> <p>21 MR. KUHLMAN: Object to form.</p> <p>22 Q But at the time this report was drafted, it</p> <p>23 was about three, maybe four years -- about three years</p> <p>24 later, correct?</p> <p>25 MR. KUHLMAN: Object to form.</p>

<p style="text-align: right;">Page 66</p> <p>1 A This is what the report says.</p> <p>2 Q The standard really wasn't really new at the</p> <p>3 time this report was drafted, correct?</p> <p>4 A You know, I -- I don't -- again, you know, our</p> <p>5 technical people handled these -- these matters with</p> <p>6 listings, so I am not familiar with all these details</p> <p>7 that you're asking me about the newness of a standard or</p> <p>8 how long it's still new or not or how long you have it.</p> <p>9 So you know, I'm sorry, I can't answer some of these</p> <p>10 questions you're asking me.</p> <p>11 Q But I guess the bottom line in what you're</p> <p>12 saying is the fact that the red and orange pipe had</p> <p>13 failed the chlorine-resistance test wasn't particularly</p> <p>14 significant to you as the general manager of the PEX</p> <p>15 products?</p> <p>16 MR. KUHLMAN: Object to form.</p> <p>17 A It was -- it was a concern in terms of third-</p> <p>18 party listings, but it had no impact on whether I felt</p> <p>19 the product met quality standards or not, that it was --</p> <p>20 it had no impact on how I felt about the quality of what</p> <p>21 we were selling in the field.</p> <p>22 Q I believe you mentioned before that, at least</p> <p>23 in your view, there's some controversy in the industry</p> <p>24 about the validity of the chlorine-resistant testing?</p> <p>25 A Yes.</p>	<p style="text-align: right;">Page 68</p> <p>1 A Yeah.</p> <p>2 Q And so another question on page 8 of the</p> <p>3 document. In the paragraph that begins, "An independent</p> <p>4 listing versus a dependent listing"; do you see that</p> <p>5 paragraph?</p> <p>6 A Yes.</p> <p>7 Q So at the end of that paragraph Mr. Bobo</p> <p>8 writes, "A recent change has occurred in the standards</p> <p>9 governing dependent listings so that additional data</p> <p>10 points test samples must be included. This change is</p> <p>11 expected to further restrict the ability to gain</p> <p>12 independent listing." Is that kind of what you're</p> <p>13 talking about with respect to those data points that</p> <p>14 need to be considered?</p> <p>15 A I have no way of knowing if that's what he's</p> <p>16 referring to here.</p> <p>17 Q Okay. If we go to page 12 in the same</p> <p>18 document there's a section 4.2.1 entitled "Maintain the</p> <p>19 product listing"; do you see that section?</p> <p>20 A Yes.</p> <p>21 Q And in this section Mr. Bobo says that, "The</p> <p>22 primary approach to maintaining the current product</p> <p>23 listing would need to attempt to transfer the existing</p> <p>24 product listing with NSF to an additional listing agency</p> <p>25 (i.e., IAMPO). The goal is to list without performing</p>
<p style="text-align: right;">Page 67</p> <p>1 Q We talked about it a little bit. Can you</p> <p>2 describe a little bit more why the validity has been</p> <p>3 called into question, let's say?</p> <p>4 A Well, I'm -- you know, I'm not an expert on</p> <p>5 this, but I know that there have been cases in the past</p> <p>6 where product that actually performed too well failed</p> <p>7 the test because of the way the test protocol's been</p> <p>8 written, and it's based on kind of a regression curve,</p> <p>9 and if a data point that is too low or a data point that</p> <p>10 is too high can both be bad. And so it made no sense to</p> <p>11 us that if you test a product that actually does much</p> <p>12 better than it is expected, that it wouldn't pass the</p> <p>13 test. So you know, people like our technical people</p> <p>14 understand this a lot more than I do. I have only a</p> <p>15 layman's understanding of this. But in talking to our</p> <p>16 technical people and people within our industry, there's</p> <p>17 been a lot of controversy about the testing protocols</p> <p>18 and whether they're really measuring what we're trying</p> <p>19 to measure.</p> <p>20 Q Okay. And I certainly don't claim --</p> <p>21 A Just from a --</p> <p>22 Q -- to be an expert --</p> <p>23 A Just from my general standpoint.</p> <p>24 Q -- in that either. And that's why I'm just</p> <p>25 trying to understand.</p>	<p style="text-align: right;">Page 69</p> <p>1 any additional testing." Why would your goal not want</p> <p>2 to -- not wanting to have performed any additional</p> <p>3 testing at that point?</p> <p>4 A I'd say expenses, you know, to -- sometimes</p> <p>5 listing agencies will -- sometimes they want their own</p> <p>6 lab to do the testing, but sometimes they'll accept data</p> <p>7 from -- from other sources. So it's just -- my</p> <p>8 understanding is that it's just a way for reducing cost</p> <p>9 if you have to go through a bunch of tests again.</p> <p>10 Q Okay.</p> <p>11 A If a listing is who would accept data from a</p> <p>12 particular lab.</p> <p>13 Q Was there any concern that the product</p> <p>14 wouldn't pass the testing?</p> <p>15 MR. KUHLMAN: Object to form.</p> <p>16 A I just -- again, you know, David was the</p> <p>17 technical guy. It's not uncommon for us to have</p> <p>18 multiple listings, and this isn't -- there's nothing</p> <p>19 unusual with -- with doing something like this.</p> <p>20 Q At the time, did you have any concern that if</p> <p>21 the product was retested it would fail the chlorine-</p> <p>22 resistance testing?</p> <p>23 A Other than just reading the report, and I</p> <p>24 mean, obviously, if being in the report there's concerns</p> <p>25 about some variability, you know, during -- during</p>

<p style="text-align: right;">Page 70</p> <p>1 testing that, as Mr. Bobo stated, might jeopardize the 2 listing. But that was, you know, my only concern. 3 Q And if you didn't have a listing for the 4 product -- a listing for the product, that would hurt 5 sales, right? 6 A It may or may not. I mean, it's kind of 7 uncharted territory. You know, we always sell products 8 that do have-third party independent listings. I'm sure 9 there are -- NIBCO's never done it, but I'm sure there's 10 some people that have sold products without listings, 11 and then what happened is if a home inspector looks at 12 the tubing and doesn't see a mark on it, you know, they 13 could rip it out and take it out. But I mean, what 14 you're -- typically you want to tell what listing. When 15 it's IABMO or NSF or CSA, you know, it's -- and there's 16 others beyond that that you can get as well. It just -- 17 it depends on what markets you want to penetrate and who 18 -- you know, there are people that specify certain 19 products with certain listings, so you know, it behooves 20 you to have, you know, one or more listings so that you 21 don't limit your commercial opportunities. 22 Q Okay. And you touched a little bit on this 23 right now, but I wanted to ask: How did NIBCO determine 24 which third-party entity it will seek certification 25 from?</p>	<p style="text-align: right;">Page 72</p> <p>1 thought it was fine. We had people -- we had people at 2 NIBCO that have been doing this for 20, 30 years, and so 3 they, you know, they understand the testing. They have 4 engineering backgrounds and, you know, that's -- that's 5 their job. 6 Q And, again, none of these technical people -- 7 well, let me ask again. Did any of the technical people 8 come to you and say, "The red and orange pipe failed the 9 chlorine tests?" 10 MR. KUHLMAN: Object to form. 11 A I don't remember a specific discussion about 12 that. I'm sure that we had meetings, or we talked 13 about, you know, David's recommendation. We talked 14 about, you know, listings in general. 15 Q So earlier, we discussed the cross-linking 16 method for PEXc pipe? 17 A Yes. 18 Q And that involves, again, I'm not a technical 19 person, essentially using electrons to strengthen the 20 molecular bonds; is that -- 21 A Yes. 22 Q -- fair? What entity performed cross-linking 23 for NIBCO in 2006, let's say? 24 A There's a company called E-BEAM Services 25 located in Lebanon, Ohio.</p>
<p style="text-align: right;">Page 71</p> <p>1 A Well, I -- I wasn't involved in those 2 decisions. But we've -- you know, we've had 3 relationships with most, if not all, of the third-party 4 listing agencies. But that is part of the engineering 5 department's decision. I'm not involved in those 6 decisions or was not involved in those decisions. 7 Q Okay. So you just want them to tell you that 8 the product is listed with someone, and that's -- 9 A Correct. 10 Q -- okay? 11 A Yes. 12 Q And, again, if that listing is based on a 13 provisional listing that was no longer in effect at the 14 time, that's okay, too, right? 15 MR. KUHLMAN: Object to form. 16 A Well, again, the technical people and the 17 third-party listing people, I don't understand all the 18 intricacies of it, but as general manager, you know, I 19 wanted to have listings, and I, you know, entrusted our 20 insuring people to, you know, ensure that that occurred. 21 Q Do you think in retrospect you should have 22 been more involved in certification issues as general 23 manager? 24 A No. I think, you know, I knew what was going 25 on, and I supported what we were doing and, no, I</p>	<p style="text-align: right;">Page 73</p> <p>1 Q It was actually in the same facility, 2 essentially, as the manufacturing facility, right, or 3 right next door? 4 A Yes. When we acquired the assets of the 5 company, we leased space from E-BEAM Services, and then 6 later we acquired a building across the street and moved 7 the extrusion equipment there and continued to use them 8 as the E-BEAM supplier. 9 Q Okay. So it was part of the decision then to 10 make and sell PEXc tubing as compared to PEXb or PEXa, 11 the fact that E-BEAM Services was readily available? 12 A Well, it's a part of it. I mean, that was -- 13 that is what we, you know, had been selling, and we had 14 a relationship with them and they did a great job and, 15 you know, we wanted to continue that. 16 Q As of the last date that you were employed by 17 NIBCO, was NIBCO still using E-BEAM Services to 18 crosslink the PEXc tubing? 19 A I believe so, yes. 20 Q Do you recall during your time as general 21 manager for PEX products having any concerns about the 22 quality of cross-linking that E-BEAM was performing on 23 the PEXc tubing? 24 MR. KUHLMAN: Object to form. 25 A No.</p>

Page 74	Page 76
<p>1 Q No, it was you don't recall?</p> <p>2 A I had no -- no, I had no concerns about the</p> <p>3 quality of the work they did.</p> <p>4 Q Okay. Let me ask, turning back to this</p> <p>5 document here, Exhibit 2?</p> <p>6 A Uh-huh.</p> <p>7 Q On page 13. There's a section 4.2.3 entitled</p> <p>8 "Improvement of the current E-BEAM process."</p> <p>9 A Yes.</p> <p>10 Q And, again, Mr. Bobo writes, "NIBCO's</p> <p>11 understanding of the process and impacted variables</p> <p>12 associated with E-BEAM Services has been identified as</p> <p>13 lacking and is recognized as a major potential source of</p> <p>14 product variation both along the pipe axis and pipe</p> <p>15 circumference." At the time that this document was</p> <p>16 created, or at least the time that you reviewed it, do</p> <p>17 you remember there being variation along the pipe axis</p> <p>18 and pipe circumference of the PEXc tubing?</p> <p>19 MR. KUHLMAN: Object to form.</p> <p>20 A No. You have to understand, we had acquired</p> <p>21 the assets of CPI in 2006, and we would extrude the</p> <p>22 tubing and then send it to E-BEAM Services. They would</p> <p>23 E-BEAM it. It would come back to us, and we'd sell it.</p> <p>24 What he's talking about here is we -- what was lacking</p> <p>25 was our understanding, and so a large part of this</p>	<p>1 A Yes.</p> <p>2 Q And so Mr. Bobo writes, "By undertaking this</p> <p>3 program, NIBCO will be in a position to," among other</p> <p>4 things, "provide a PEX pipe product that is always in</p> <p>5 compliance with current standards." As the general</p> <p>6 manager for PEX products, was it important to you that</p> <p>7 the PEX products you were selling were always in</p> <p>8 compliance with the current standards?</p> <p>9 MR. KUHLMAN: Object to form.</p> <p>10 A Yes.</p> <p>11 Q Has NIBCO ever switched from one third-party</p> <p>12 certification entity to another because it lost its</p> <p>13 listing for a PEX product?</p> <p>14 A I don't know. I -- I don't know.</p> <p>15 Q Is that something you would have been made</p> <p>16 aware of as general manager if it occurred?</p> <p>17 A Well, I mean, what you're saying is you have a</p> <p>18 listing with one, and you lose it, and then you don't</p> <p>19 have anything, and then you switch to another one. I</p> <p>20 don't recall any situation like that. We may have had</p> <p>21 multiple listings, but I don't recall losing a listing</p> <p>22 and then -- it's such a long process. I mean, it -- it</p> <p>23 takes a year or more to get a listing so you would never</p> <p>24 do anything like that. It's a situation I doubt would</p> <p>25 ever come up.</p>
Page 75	Page 77
<p>1 project was to dig in a little bit deeper into the E-</p> <p>2 BEAM process so that we could understand it. And -- and</p> <p>3 we did not know at the time if any variability was</p> <p>4 occurring, but we thought we might -- we probably ought</p> <p>5 to check it out to see if there was any variability in</p> <p>6 the process. And my understanding was at the end of</p> <p>7 this study, we determined that there was very little</p> <p>8 variation in their process.</p> <p>9 Q Okay. So to your understanding, when he's</p> <p>10 referring to product variation along with pipe axis and</p> <p>11 pipe circumference, he's wondering whether that's --</p> <p>12 A He --</p> <p>13 Q -- occurring --</p> <p>14 A He --</p> <p>15 Q -- rather than stating that it is occurring?</p> <p>16 A He says it's a potential source of product</p> <p>17 variation. He didn't say it was a source of product</p> <p>18 variation, but it was something that we needed to have a</p> <p>19 better understanding of to see if -- if it was</p> <p>20 contributing to any variation in the product.</p> <p>21 Q And just to finish up with this document, will</p> <p>22 you turn to page 14? The last page in the document. And</p> <p>23 on this page there's a section 5, "Recommendation," and</p> <p>24 there's some bullet points. Do you see those bullet</p> <p>25 points?</p>	<p>1 Q Did NIBCO ever make that switch from one</p> <p>2 third-party certification entity to another because it</p> <p>3 was concerned that it might lose the listing?</p> <p>4 A Well, I don't know. I mean, in this report,</p> <p>5 obviously, one of the recommendations was to have a</p> <p>6 listing with -- a dual listing with IAPMO, and it's not</p> <p>7 uncommon to have multiple listings for products. Indeed,</p> <p>8 I think that, at one time, CPI Pipe had listings from, I</p> <p>9 think, up to four different agencies, IAPMO and CSA, and</p> <p>10 I said, hey, so, you know, it's not uncommon in our</p> <p>11 industry to have multiple listings. It doesn't</p> <p>12 necessarily mean that you're concerned about losing</p> <p>13 something. But it's done for a number of different</p> <p>14 reasons.</p> <p>15 Q Yeah. And I understand that there may be</p> <p>16 different reasons for certification, and you might be</p> <p>17 listed with multiple agencies at the same time.</p> <p>18 A Uh-huh.</p> <p>19 Q But specifically, did NIBCO ever switch from</p> <p>20 one third-party certifier to another because it was</p> <p>21 concerned that it was going to lose that original</p> <p>22 listing?</p> <p>23 A Well, I don't know. I think that -- I think</p> <p>24 that sometimes you add additional listings to spread out</p> <p>25 some -- some risk that you might have with that.</p>

<p style="text-align: right;">Page 78</p> <p>1 Q Do you have recollection of a specific time 2 when NIBCO added an additional listing based on concern 3 of losing one of the then current listings for a PEX 4 product? 5 A No. All I've -- I don't know. In reading the 6 report, I saw where David had recommended getting a 7 listing from IAPMO. I can't -- I'm sorry. I can't 8 remember if we actually did that or not. I know that 9 one time we had some discussions about that, but I'm not 10 sure that we did that or not. 11 Q In those discussions about the switch to 12 IAPMO? 13 A Uh-huh. 14 Q Was any part of those discussions we might 15 lose our NSF listing, we should have a backup? 16 A Well, you know, I -- I think if you read the 17 report, David Bobo is kind of recommending that we get 18 an additional listing, and -- and I think in this case 19 he is talking about, like, an insurance policy. But 20 it's not uncommon, you know, to do this in our industry. 21 Q And saying -- I know you said throughout he's 22 making certain recommendations in the document, but 23 setting that aside, separate from the document, did you 24 have any discussions with Mr. Bobo or anyone at NIBCO 25 that adding IAPMO listing was a good idea because we</p>	<p style="text-align: right;">Page 80</p> <p>1 A Oh, yeah, yeah. 2 Q Did you work with Alicia at all? 3 A I don't know if she was involved in this 4 project that much. I think there was another fellow who 5 was more involved, as I recall. 6 Q You just don't remember his name? 7 A No. 8 Q Are you aware that in 2009, Alicia Valentine 9 was recommending to NIBCO that they -- that NIBCO hide 10 red pipe from NSF auditors if they came to the 11 manufacturing facility? 12 A No. 13 Q Have you become aware of that since 2009? 14 A No. 15 Q Is this the first you're hearing about it? 16 A Yes. 17 Q If she was making that recommendation to NIBCO 18 at the time, is that something you should have been 19 aware of as general manager of PEX products? 20 MR. KUHLMAN: Object to form. 21 A Can you -- something I should be aware of? I 22 don't know. It's not something we would do. I know 23 that, so -- and I don't think anyone under me was aware 24 of that or -- or would ever do anything. We just 25 wouldn't do that.</p>
<p style="text-align: right;">Page 79</p> <p>1 might lose the NSF listing? 2 A I do remember a meeting where we were talking 3 about his recommendation, and we did discuss his 4 recommendation. 5 Q What was discussed at that meeting? 6 A I don't remember. I just remember that we 7 talked about it, but I can't remember what decisions 8 were made. 9 Q During your time at NIBCO -- well, what direct 10 involvement have you had with personnel at Jana Labs? 11 A Well, I know -- I know some of the people 12 there and just really just meet -- seeing them at 13 industry associations, like the Plastic Pipe Institute, 14 they would be at meetings. And you know, I had 15 interactions with them, with the reformulation project 16 that Jana was involved with this, you know, I would be 17 involved in meetings, you know, when Jana gave us 18 reports on their progress. 19 Q Okay. Who do you recall, you know, having 20 interactions with at Jana? Do you remember the names of 21 any of the individuals? 22 A No. Right now I don't recall the names of the 23 folks. 24 Q Do you remember somebody by the name of Alicia 25 Valentine?</p>	<p style="text-align: right;">Page 81</p> <p>1 Q Are you aware that Ms. Valentine provided a 2 memo to David Bobo and to Ken McCoy in 2009 recommending 3 that NIBCO hide red pipe from NSF auditors? 4 A No, I did not know that. 5 Q Mr. Bobo never brought that topic up with you? 6 A No. 7 Q And Mr. McCoy didn't either? 8 A No, I think I would have remembered that. 9 Q Do you know what, if any, response anyone at 10 NIBCO gave to Ms. Valentine about that recommendation? 11 A No, I do not. 12 Q What would you have done? 13 A I would have said, "We're not hiding pipe." 14 Q Okay. But you're not aware of anyone else at 15 NIBCO that actually said that to her? 16 A No, I don't recall. 17 Q And you said Jana personnel were also involved 18 in the reformulation project -- 19 A Yes. 20 Q -- that you worked with on some of the 21 project. What was your involvement with Jana on the 22 reformulation project? 23 A Very little. I mean, David Bobo was manager 24 from the NIBCO side, and so he -- he interacted mostly 25 with the Jana people. I mean, periodically we'd have</p>

<p style="text-align: right;">Page 82</p> <p>1 updates by David, and then less frequently the Jana 2 people would come and give us an update. But that -- 3 that was the extent of my contact. 4 Q Okay. And during that same time period when 5 the reformulation was occurring, was there also a 6 project to maintain the listings for the 1006 pipe? 7 A Yeah, yeah. I think that was part of it as 8 well. 9 Q Did you have any involvement in that aspect of 10 the project? 11 A No involvement in it, no, other than just 12 reports on how they were doing. 13 Q Similar to the reformulation people? 14 A Yes, yeah. And similar with the E-BEAM 15 project as well. 16 Q When you were general manager for PEX, did you 17 have regular meetings with the staff that was reporting 18 to you? 19 A Yes. 20 Q How often did you have those meetings? 21 A Well, the plant people, our production manager 22 and logistics people and the leadership team at the 23 plant, we'd meet three times a week. And then I would 24 also meet with -- we had a kind of a market team. We 25 actually call them business management teams that met</p>	<p style="text-align: right;">Page 84</p> <p>1 Q Okay. And then for the business management 2 team meetings that occurred about once a month, were 3 there technical people, aside from Debbie, in attendance 4 at those meetings? 5 A Yeah, like, David Bobo would attend that, Earl 6 Sexton, Tom Coe. 7 Q Okay. So even though, you know, you had said 8 before that for certain things, including certification, 9 you rely on technical people or engineers to do that? 10 A Yes. 11 Q There was at least regular opportunities for 12 you to meet with those people and to discuss any issues 13 that were going on, right? 14 A Yes. 15 Q So they if they had concerns about red and 16 orange pipe failing chlorine tests, they would have had 17 opportunities to bring that up to you during these 18 meetings, right? 19 MR. KUHLMAN: Object to form. 20 A It was not -- I mean, the maintenance of the 21 listings was -- was, you know, in the, you know, inside 22 our engineering department. It wasn't something that 23 was a regular topic that we talked about, you know, 24 because they were entrusted with, you know, taking care 25 of those matters.</p>
<p style="text-align: right;">Page 83</p> <p>1 once a month, and this was a cross-functional meeting 2 where there'd be, you know, people from manufacturing 3 and engineering and, you know, product managers, and 4 we'd just kind of review the state of the business and 5 review financials and, you know, the projects that we 6 were working on. 7 Q Okay. So there's three times a week. Were 8 technical people involved in those meetings? 9 A Well, our -- our quality manager Debbie Premus 10 attended those meetings, yes. 11 Q Okay. Who else was in attendance at those 12 meetings? 13 A Our -- our distribution manager, Donnie 14 Matchek, and manufacturing manager, and then we had a 15 secondary processing manager just who would cut the 16 tubing, who would attend that meeting, our HR manager, 17 and that's about it. We -- yeah, that -- that was the 18 core of the team. 19 Q Okay. And Debbie Premus was the quality 20 control manager at that point, was that her title? 21 A Yes. 22 Q But she was really the only kind of what we 23 refer as a technical person who attended those meetings? 24 A Yeah, yeah. Most of the engineering resources 25 were at our headquarters in Elkhart.</p>	<p style="text-align: right;">Page 85</p> <p>1 Q Okay. So when you're in a meeting, the 2 listings and third-party certification wasn't at the top 3 of the pile? 4 A It wasn't even an agenda item, no. David, 5 during this process where we were doing these projects, 6 he might give a short update on how we were doing, but 7 that was the extent of that. We were -- we were 8 involved in other matters. 9 Q When you left NIBCO, to your knowledge, what 10 portion of NIBCO's business was PEX products? 11 A Well, at the time that I left, -- 12 Q Yes? 13 A -- five percent. 14 Q Five percent, okay. And had that number 15 changed over the years prior to that since you became 16 general manager? 17 A A little. Probably not a lot. 18 Q Okay. So let's say in, you know, 2008, do you 19 know about what percent it would have been? 20 A Maybe four percent. 21 Q Okay. So there was -- over the period of that 22 period of time, there was some modest growth, let's say? 23 A Yes. We -- you know, when we acquired the 24 business the housing recession started, so -- and so 25 that impacted our sales. We were successful in taking</p>

Page 86	Page 88
<p>1 share from competitors. So we did have some growth 2 during that time period, but it's a small enough piece 3 of the overall NIBCO business that, you know, even if we 4 were to grow by a lot, it wasn't going to change the 5 percent of total NIBCO business number. 6 Q Okay. Did that part of the business grow more 7 in the last, let's say, two to three years you were at 8 NIBCO? 9 A Well, it -- during my tenure there, I think 10 that in most years we did show some sales growth. There 11 may have been a couple of years where we took a step 12 back, but in most years, we were growing the business, 13 as I recall. 14 Q When did NIBCO first start selling the 3308 15 pipe? 16 A I believe that was in 2013. I think it was in 17 the fall of 2013, I -- I think. 18 Q Okay. And around that time -- 19 A Yes. 20 Q -- when NIBCO began selling the 3308 pipe, did 21 it continue to sell the 1006 pipe as well? 22 A Yeah. I think that we probably -- I mean, we 23 didn't -- I'm sure that we had some stock in our 24 inventory, and we sold that, yes. 25 Q Okay. Did you have a timeframe of about how</p>	<p>1 A Well, you know, I -- yeah. I mean, it was our 2 hope that we continued to grow, yes. 3 Q Did you believe that certain customers would 4 stop purchasing tubing from NIBCO if it didn't 5 reformulate? 6 A No. No. Customers were, you know, still 7 buying from us, and there was probably a small subset 8 that, you know, wanted a higher recirculation value, but 9 it wasn't -- it wasn't going to cost us anything in the 10 short term. 11 Q In that PEX pipe development strategy 12 document, Exhibit 2 that we were looking at earlier, did 13 Mr. Bobo mention as part of the reason for the 14 reformulation project that customers were asking for 15 better conformance for recirculation systems? 16 A I think he did. 17 Q Okay. Can you point me to that? 18 MR. KUHLMAN: Do you think it's faster if we 19 take a break? 20 MR. SHAMBERG: Sure. Yeah. Let's go off the 21 record. 22 (OFF THE RECORD) 23 THE WITNESS: Okay. Well, I -- I didn't find 24 that exactly, but I think I was looking at the -- on 25 page 15, the second bullet point provided more</p>
Page 87	Page 89
<p>1 long that inventory was sold after the 3308 pipe? 2 A I don't know. I suppose after, you know, 3 three months or so probably had depleted the 1006, I 4 would think, you know. 5 Q Do you have any knowledge as to whether 1006 6 pipe is still available for purchase through retail 7 channels? 8 A I do not know. 9 Q How did the -- let's say over the first year 10 that the 3308 pipe was available in your market, how did 11 the sales of 3308 compare to the 1006 pipe? 12 A I think it was -- you know, I think we just 13 made the conversion, and there was no dramatic change 14 one way or the other in our sales. 15 Q Okay. So did they -- were there any new 16 customers that were obtained specifically because you 17 had a new offering? 18 A I -- you know, I think that the -- the change 19 to reformulate, like I said earlier, it was a defensive 20 marketplace issue. It's something that -- that you 21 needed to have, and so it wasn't, you know, it wasn't 22 going to have a dramatic impact on our sales one way or 23 the other, at least -- at least initially. 24 Q Did you believe that it eventually would have 25 an impact on sales?</p>	<p>1 competitive product by achieving higher chlorine- 2 resistant standards and, you know, the achievement 3 of the, you know, the recirculation is dependent 4 upon that. So I was probably reading something into 5 that. But other than -- I think that's what -- I 6 mean, that's what we were all talking about, yes. 7 BY MR. SHAMBERG: 8 Q In terms of making it a more -- 9 A Yes. 10 Q -- competitive product, that's the language 11 you're referring to, right? 12 A Correct. 13 Q And also, according to the document, achieving 14 higher chlorine-resistance would ensure that NIBCO was 15 able to maintain third-party certifications as well, 16 right? 17 MR. KUHLMAN: Object to form. 18 A Well, it -- again, it depends because we've 19 already shown that there's a difference between passing 20 tests and the chlorine resistance of -- of the tubing, 21 you know, because of, you know, some of the controversy 22 in the data. 23 Q So let me ask you about that. You've 24 mentioned a few times that there's controversy in the 25 industry as to the validity of the data for the</p>

<p style="text-align: right;">Page 90</p> <p>1 chlorine-resistant testing. 2 A Uh-huh. 3 Q Well, how has the industry voiced those 4 concerns? 5 A Well, that -- that's a good question. I -- 6 you know, we belong to industry associations, the 7 foremost one when it comes to PEX is the Plastic Pipe 8 Institute, and there are technical committees that 9 discuss these issues. And I mean, I -- I don't sit on 10 those committees, but I know that they talk about these 11 things all the time and, you know, they've all, you 12 know, brought up, you know, their concerns with -- with 13 testing protocols. You know, even the -- anyway, 14 there's just a lot of arguing among technical people for 15 testing standards, yes. 16 Q Who would be NIBCO's representative in that 17 discussion? 18 A Well, you know, Mark Clark was part of our 19 standards and codes team, and he was involved in those 20 things and then, of course David Bobo is involved in 21 those things. 22 Q And has this debate been memorialized in any 23 way? In other words, so you mention the Plastic Pipe 24 Institute. Are there, you know, records at those 25 meetings that contain the discussions?</p>	<p style="text-align: right;">Page 92</p> <p>1 Q Okay. What kinds of products? 2 A Well, I know that, like, with the industrial 3 plastics products that we sold, we had multiple 4 listings. We usually had a CSA and NSF listings. I 5 think we always had at least two. And I think that, I 6 know with plastic fittings, there's also multiple 7 listings as well, so it's not -- it's not uncommon. 8 Q Okay. And then when we talk about the reason 9 for reformulating the pipe, you testified that it was 10 largely market driven in terms of maintaining or 11 creating a competitive product in the industry. How did 12 NIBCO make that determination that it needed to, you 13 know, improve the chlorine resistance in order to remain 14 competitive in the market? 15 MR. KUHLMAN: Object to form. 16 A Well, with any of our products, we conduct a 17 voice of the customer studies and we poll them on what, 18 you know, what they're looking for and what they need, 19 is this important to them. Initially we -- a lot of 20 plumbers really weren't aware of the recirculation, you 21 know, ratings or standards. But then as time went by, 22 there were more people putting recirculation systems in 23 their homes. A lot is spurred by water conservation 24 efforts. And so it was just something that we saw was 25 going to continue to grow, and so we wanted to have a</p>
<p style="text-align: right;">Page 91</p> <p>1 A I don't -- I wouldn't -- I don't know. I 2 don't know. But, you know, these were discussions. I 3 mean, we have discussions with Jana about it and others, 4 but I -- I know that they've taken place. 5 Q Did you have any discussions personally with 6 Jana about the -- 7 A No. 8 Q -- standards? 9 A No, I didn't, no. 10 Q Okay. That would have been Mark Clark or 11 maybe David Bobo? 12 A Correct. 13 Q Are you aware of any papers that have been 14 published within the industry discussing the standards 15 and the -- 16 A I'm not aware -- I'm not aware of any. 17 Q And before we go onto kind of a separate 18 topic, there were a couple of things that you testified 19 earlier that I just wanted to follow up on a little bit. 20 You had mentioned that it's not uncommon to maintain 21 listings with more than one certification agency for the 22 PEX products. Does NIBCO also maintain multiple listing 23 for -- listings with certification in these for non-PEX 24 products? 25 A Yes.</p>	<p style="text-align: right;">Page 93</p> <p>1 product that could address those needs. 2 Q Okay. What -- you said part of it was polling 3 customers. How was that done? 4 A Just one-on-one interviews with plumbers. 5 Q Okay. 6 A Plumbing contractors. 7 Q Would you conduct those interviews, those 8 discussions, personally? 9 A Sure, yes. 10 Q Were there ever any documents sent out to them 11 in terms of, you know, like, a written questionnaire or 12 anything? 13 A No, we just interviewed them. 14 Q About how many customers do you remember 15 asking about this particular chlorine-resistance issue? 16 A Well, when we did the original study, there 17 weren't many people that were interested in it. But I 18 think what it was -- it was more once -- once others in 19 the marketplace, competitors started promoting it, you 20 know, we -- we needed to address that, yeah. 21 Q Was -- the studies that you conducted with the 22 customers, were the results of those studies 23 memorialized in writing? 24 A Well, yeah, I -- I'm not -- yeah, I think that 25 we -- we talked about it. I mean, that -- we -- yeah,</p>

<p style="text-align: right;">Page 94</p> <p>1 we did put together the -- you know, the feedback from 2 plumbers, yeah. 3 Q Okay. Did you put that together, or was 4 someone else assigned with that task of... 5 A I can't remember. I can't remember who did 6 it. 7 Q Do you remember providing any of those 8 documents to your lawyers in this case -- NIBCO's 9 lawyers in this case? 10 A No, it's not -- no. I mean, I don't even know 11 if they exist anymore. 12 Q Does NIBCO have a system in place for tracking 13 customer complaints for its files? 14 A Yes. 15 Q Well, what's that system? 16 A It's called the PER process. I think it 17 stands for product evaluation report. 18 Q Product evaluation report, okay. What's your 19 understanding of how that process works? 20 A Well, if someone has an issue with one of our 21 products typically, they or one of our salespeople will 22 contact NIBCO. We have an 800 number with a technical 23 support staff, and they will take down as much 24 information as they can about the problem, and then they 25 will issue a PER number that is basically a tracking</p>	<p style="text-align: right;">Page 96</p> <p>1 compensation or replacement of product, you know, 2 whatever is required in that instance. If there's -- 3 you know, if it's not -- if there's no manufacturing 4 defect involved then, you know, a report is sent 5 informing the end-user of that decision. 6 Q Okay. So the information is essentially 7 limited to whether or not there was a manufacturing 8 issue with the product? 9 A That's the primary thing you're looking at, 10 you know, when it's come in, you want to make sure it 11 wasn't, you know, you didn't have a defective product. 12 Q And at that time, is it to protect NIBCO from 13 potential liability, right? 14 A Well, I mean yeah. I mean they're -- usually 15 people send things in, and sometimes they feel that the 16 product failed, or they may not know, and it just 17 depends. It's on a case-by-case basis. Everything is 18 kind of different. 19 Q So these letters that you mentioned, are those 20 ERLs, referred to as ERLs, the letters that are sent to 21 the customer, or is that something else? 22 A Oh, the ERL. I'm not sure. 23 Q First, I'm going to you on the integers for 24 the pipe. Now, I'm going to you on what ERL stands for. 25 A Yeah.</p>
<p style="text-align: right;">Page 95</p> <p>1 number for that case, and then if there's a defective 2 fitting or piece of pipe or a valve or whatever, it is 3 sent back to NIBCO, and then we have a lab that will 4 evaluate the product and determine if it -- if it was a 5 manufacturing -- because of a manufacturing defect or 6 not. If it's not a manufacturing defect, they try to 7 determine the root cause, you know, if they can. 8 Q At the time you were general manager for PEX, 9 what involvement did you have in the PER process for PEX 10 products? 11 A Well, I usually -- I -- I think in the 12 beginning we just had a department that -- that was 13 handling these -- these issues, and then I would get 14 reports with -- with how many and what the cause was. 15 And then I think -- I think probably the last few years 16 I was there, I -- I liked to actually see the reports, 17 and so I had someone sending those to me so I could take 18 a look at them. 19 Q Okay. So how is the results of the internal 20 investigation communicated to the customer who initiated 21 the complaint? 22 A Well, a letter -- a letter is sent to -- to 23 the customer, and if it's -- you know, if it's a defect 24 in the product and, you know, it's covered by warranty 25 then our technical people arrange, you know,</p>	<p style="text-align: right;">Page 97</p> <p>1 Q But you mentioned -- regardless of -- 2 A Yeah. 3 Q -- what they're referred to, you mentioned 4 that you hadn't really been involved in it. At some 5 point, maybe in the last three years, you started 6 wanting to review those letters that went out to the 7 customers? 8 A Sure. 9 Q Why did you make that change? 10 A Oh, I just got more -- you know, more 11 interested in it and wanted to see them. I -- I wanted 12 -- I wanted to make sure that the -- I just want -- I 13 just wanted to have more visibility to it and, you know, 14 and then the responses back from our technical staff, I 15 just kind of wanted to know what they were -- you know, 16 what they were saying, what their evaluation was. 17 Q Was there a particular impetus that made you 18 more interested in those things at that time? 19 A Well, I think that, you know, we had seen 20 some, you know, issues in the field, and I just wanted 21 to have more visibility to it so I could get more 22 understanding. 23 Q What kind of issues are you -- did you see in 24 the field? 25 A Well, what we saw was -- well, first of all,</p>

<p style="text-align: right;">Page 98</p> <p>1 you know, PEX tubing has replaced, you know, copper in 2 most residential applications, and it's a great product, 3 but, you have to install it correctly. And there are 4 pressure limits on the product that you have to adhere 5 to, and so you know, as long as you follow the 6 manufacturer's recommendations, you know, you're not 7 going to have any issues. But we did see some -- some 8 cases in the field where the tubing had been mis- 9 installed or was exposed to high water pressures that 10 over time might lead to a failure. And so I just wanted 11 to get closer to that and have a better understanding. 12 Q Were you able to gain a better understanding 13 through being more involved in the process? 14 A Yeah, I think so. We -- you know, we got -- 15 we got better at investigating, you know, complaints and 16 understanding. The product -- again, understand PEX is 17 still a relatively new product, and I think that if you 18 look at other products in the plumbing industry, you'll 19 find this is a time period where it takes install -- 20 plumbers, installers, you know, to learn, you know, the 21 proper -- proper methods and -- and things you need for 22 that product to, you know, to be successful. So you 23 know, that -- that was the motivation for it. 24 Q Aside from when NIBCO started selling PEXc 25 products.</p>	<p style="text-align: right;">Page 100</p> <p>1 the tubing had been exposed to high water pressure or 2 bent -- bent over our recommendation or sometimes gouged 3 by the installer either in storage or an installation. A 4 lot of cases where -- you know, one thing that's 5 different between copper and PEX tubing is that PEX 6 expands and contracts, and if you don't allow for 7 expansion contraction, that can lead to a failure if 8 it's placed in a tight area and not allowed to expand 9 and contract -- this is all in our installation manual, 10 but, you know, some plumbers don't follow the 11 guidelines, and then problems can ensue. 12 Q Okay. So you mentioned a few things there. 13 Let's kind of parse it out. Start with pressure. 14 A Uh-huh. 15 Q Something you said, that if the pressure's too 16 high, that can cause a failure in the pipe; is that 17 right? 18 A Usually, pressure over time. 19 Q Okay. So in an instance when a customer sends 20 in a piece of tubing in relation to a PER, how does 21 NIBCO go about evaluating what the water pressure in 22 that application would have been at the time of failure? 23 A Well, there's -- there are some 24 characteristics depending on the mode of the failure. 25 There -- there have been cases where we've had tubing</p>
<p style="text-align: right;">Page 99</p> <p>1 A Uh-huh. 2 Q When were PEXc products first available in the 3 United States market, tubing specifically? 4 A I'm not sure, but I'm told that CPI might have 5 been one of the -- well, they were the only PEXc 6 manufacturer. I -- I don't know exactly when they 7 started, but it was probably in the 1990s. 8 Q Okay. So maybe 20 years or so? 9 A Now. 10 Q As we sit here today, somewhere -- 11 A Yeah. 12 Q -- around there. During the time that you 13 were general manager for PEX products? 14 A Uh-huh. 15 Q For PERs that came in related to those PEX 16 products, and specifically PEX tubing for the purposes 17 of this question, what percentage of the time did NIBCO 18 make the determination that field failure was due to a 19 manufacturing defect? 20 A Well, it was a very small number. And if it 21 was a manufacturing defect, it was -- it may have been 22 caused by a die line where there may be a foreign object 23 that gets in the die when you're extruding the tubing 24 that causes a serration or stress point in the tubing, 25 but those were pretty rare. And in almost all cases,</p>	<p style="text-align: right;">Page 101</p> <p>1 where you can just tell that either a combination of the 2 water temperature and the pressure of the water had -- 3 had caused a catastrophic failure. If it's -- if it's a 4 small leak, you know, you really -- you can't tell what 5 the pressure, temperature was by looking at the sample. 6 Q Okay. And then you also mentioned the bending 7 and if the tubing had been bent beyond the -- 8 A Excessive bending -- 9 Q -- recommended bend radius. 10 A Yes. 11 Q That would cause a failure, too. So in that 12 same situation when a customer had sent in a sample of 13 tubing in relation to a PER, how does NIBCO go about 14 determining what the bend radius for that sample would 15 have been at the time of failure? 16 A Well, you know, sometimes we could tell by 17 looking at the sample, and there -- there have been some 18 cases where -- on some of these we send someone out to 19 the site to take a look and see what -- how the 20 installer has been installing the tubing. So in most 21 cases we don't do an on-site inspection, but on some we 22 do, you know. 23 Q Is that the best way to evaluate whether 24 improper installation contributed to the failure, to 25 actually see how the installation was performed?</p>

Page 102	Page 104
<p>1 A Yeah, yeah. Oh, I think it's the best way, 2 but sometimes by looking at the sample you can determine 3 what the root cause is. 4 Q Other times you can't? 5 A It depends on the length of the sample and if 6 someone sends you a small piece -- you know, there's a 7 lot of factors that go into determining, you know, what 8 happened. 9 Q And what percentage of the time would you say 10 -- strike that. For what percentage of PERs for PEX 11 tubing did NIBCO send a representative out to actually 12 view the installation? 13 A I don't know how many. I think it was 14 probably no more than maybe 15 times a year, something 15 like that. Dozen to 15. 16 Q In a situation that you described where 17 NIBCO's examination of the sample that's sent in is 18 inconclusive as to the cause of the failure, how does 19 NIBCO respond to the customer in that instance? 20 A Well, I -- I think that in most case -- 21 there's two things here. We -- in most cases, the 22 failure of the tubing is like an oxidating failure, and 23 so we -- what we do is we -- when a sample comes in, we 24 evaluate what the level of cross-linking has been. So 25 the first thing we want to make sure is that we've got</p>	<p>1 requirements, and therefore, the cause of the failure 2 must have been something other than the pipe, the way it 3 was manufactured, right? 4 A Uh-huh. 5 Q So if the investigation into a sample revealed 6 that the pipe did not meet a particular requirement, an 7 ASTM standard, at the time that it left the facility, 8 would you consider that to be a product defect? 9 MR. KUHLMAN: Object to form. 10 A Well, that's kind of a hypothetical situation. 11 The -- I mean, I -- first, we -- we don't typically ship 12 products that, you know, we don't think, you know, are 13 ready to be sold. 14 Q What if the product that was sold had failed 15 the F 2023 chlorine testing, would that be a product 16 defect? 17 MR. KUHLMAN: Object to form. 18 A No. No. All the products we sold had 19 listings and met -- met the requirements. A failure of 20 a test, when you're evaluating different materials and 21 reformulations and things like that, doesn't mean your 22 product is bad. It just means that it's in the process 23 of getting that listing, you know, there -- you know, 24 there may have been an issue with the test, but a test, 25 in the process against a standard doesn't mean what</p>
Page 103	Page 105
<p>1 good cross-linking. We also want to check the 2 dimensions of the tubing to make sure, you know, there 3 wasn't a thin wall or anything like that. So we usually 4 always know, in most cases, why it failed, but sometimes 5 you don't know what were the factors that contribute to 6 it. All we can determine is that there was nothing -- 7 that the tubing itself, you know, met the requirements 8 of the product, and then we would sometimes send a field 9 person or representative out to investigate it, you 10 know, if -- if the root cause wasn't, you know, readily 11 apparent. 12 Q You mentioned NIBCO's able to determine 13 whether the pipe met the applicable requirements, at 14 least at the time it met the manufacturing facility? 15 A Uh-huh. 16 Q Would you consider -- if a PEXc product didn't 17 meet those requirements at the time that it left the 18 manufacturing facility, would you consider that to be a 19 product defect? 20 MR. KUHLMAN: Object to form. 21 A I don't understand the question. Do you mean 22 when it left or what? 23 Q Well, you were saying getting to the cause of 24 the failure, and you said if you can determine at the 25 time it left the facility it met the applicable</p>	<p>1 you're shipping is bad. 2 Q As long as you got the certification on there, 3 it's okay? 4 A Yeah. Well, you -- you want to meet the 5 standards, and that's typically what we -- what we do. 6 Q And you also mentioned there's a test that can 7 be performed to determine the degree of cross-linking? 8 A Uh-huh. 9 Q Has NIBCO ever determined that the root cause 10 of PEXc tubing failure was insufficient cross-linking? 11 A I think it -- I think there may have been one 12 that I saw during that time period. 13 Q Okay. Do you remember the circumstances? 14 A No, I don't remember the details of it, but I 15 mean, we -- I think that we accepted responsibility for 16 it. I don't remember all the detail, who it was, or 17 anything, but we accepted responsibility for it. 18 Q When NIBCO communicates with the customer 19 about the outcome of their PER investigation, the ERL or 20 whatever letter is sent to the customer, does NIBCO 21 identify the root cause of the failure to the customer? 22 A Sometimes, yes. 23 Q How is -- why sometimes? 24 A Well, if -- you know, if they send a long 25 piece of tubing and if it's obvious that they've --</p>

<p style="text-align: right;">Page 106</p> <p>1 they've over-bent it, you know, sometimes it's been so 2 far that it's kinked, that's an easy call, you know, so 3 we -- we can make those, you know. If there's an 4 oxidated failure, you know, it could be -- I mean, even 5 those can be a kink or it could be too high water 6 pressure, too much water pressure over time. If there's 7 an obvious -- I think that our technical staff, if 8 there's been like a puncture or a gouge, you know, that 9 they can usually tell by examining the material, like, 10 under a microscope, so -- so there's some things they 11 can determine and sometimes, you know, they can't. It 12 just depends.</p> <p>13 Q Have there been instances where NIBCO has been 14 able to determine the root cause of a failure but has 15 nevertheless not -- chosen not to communicate that root 16 cause to the customer?</p> <p>17 A Like, when we -- are you referring to when we 18 make a -- like, an on-site visit or...</p> <p>19 Q In any situation where NIBCO has conducted an 20 investigation --</p> <p>21 A No, if we --</p> <p>22 Q -- and not responded to the customer?</p> <p>23 A No. If we know, if we have a good idea what 24 the root cause is, you know, we're going to tell the 25 customer what happened, what caused this, because we</p>	<p style="text-align: right;">Page 108</p> <p>1 Q Okay. So they sell the product and get a 2 commission --</p> <p>3 A They sell the product.</p> <p>4 Q -- from the sale?</p> <p>5 A Yeah.</p> <p>6 Q And in your e-mail, you're actually -- as we 7 were talking about there, you were asking whether you 8 can give the customer a little bit more information 9 specifically about the root cause of the failure, right?</p> <p>10 A Yes.</p> <p>11 Q Okay. And then that same day Ken McCoy 12 responds to you, and Ken is the technical services 13 manager; is that right, at this time?</p> <p>14 A Yes.</p> <p>15 Q Okay. So he was dealing with the customer 16 communications related to the PER, right?</p> <p>17 A Uh-huh.</p> <p>18 Q Okay. And so he says, "Randy, these reports 19 are purposely kept minimal for a host of reasons, not 20 least of which to protect ourselves from a legal 21 standpoint. This is done so we can limit and control 22 the official answers that might go public." Do you 23 think what Ken is saying right there is accurate?</p> <p>24 A Well, what he's saying, I don't even know if 25 it's accurate. I think at the time, you got to</p>
<p style="text-align: right;">Page 107</p> <p>1 don't want them to do it again.</p> <p>2 Q Is that true even if the determination is that 3 the root cause is a manufacturing defect?</p> <p>4 A Well, like I said, yeah, if -- if there's 5 something that we've done, you know, in the manufacturer 6 of the product, then typically we accept responsibility.</p> <p>7 Q Typically? Are there any instances where 8 NIBCO doesn't accept responsibility under those 9 circumstances?</p> <p>10 A No.</p> <p>11 MR. KUHLMAN: Object to form.</p> <p>12 Q Okay. I'm going to ask you about one more 13 document.</p> <p>14 (EXHIBIT 3 MARKED FOR IDENTIFICATION)</p> <p>15 A Thank you. Okay.</p> <p>16 Q Okay. So this is Exhibit 3 that I'm showing 17 you. This is an e-mail chain relating to a specific 18 customer PER; is that right?</p> <p>19 A Yes.</p> <p>20 Q Okay. And if we look at the e-mail that you 21 sent to Ken McCoy, Debbie Premus, and CCing someone 22 named John Wood on September 22, 2008. First of all, 23 who's John Wood?</p> <p>24 A John Wood is a salesman for Sunbelt Marketing, 25 and they are an agent for NIBCO, a selling agent.</p>	<p style="text-align: right;">Page 109</p> <p>1 understand this was in 2008, relatively new to the PEX 2 business. We've only been in it two years. And so when 3 we did evaluate these -- these issues, we -- we did not 4 have some of the tools that we needed to, you know, dig 5 into it deeper. So this time, 2008, yes, I think his 6 statement is kind of where we were at back then. But as 7 time went on, we got a little bit better at 8 investigating things, I think.</p> <p>9 Q Okay. At some point, did NIBCO begin 10 providing more details to customers regarding the causes 11 of the failures?</p> <p>12 A Yes.</p> <p>13 Q Okay. Around when? Was it an organic 14 problem?</p> <p>15 A Well, I think that around -- probably around 16 2012 or so, you know, we started -- we started doing 17 more site visits with things like this. But I mean, Ken 18 in his response, he's correct. A lot of times the lab, 19 they can -- they can tell you what the failure is but 20 they don't have enough information to tell you what 21 influences this. And as you read this, there's a number 22 of possible suspects, tubing being too close to a water 23 heater, no water pressure relief valve. You know, we 24 don't know what the water pressure was it was exposed 25 to. So as time went on, Kyle, we got better as</p>

<p style="text-align: right;">Page 110</p> <p>1 investigating these -- these kind of things. 2 Q Okay. And you said in 2012, part of that 3 improvement in investigation was doing some more site 4 visits? 5 A Yeah. We did -- we did more site visits, and 6 then we made some investments in -- in instrumentation 7 to help us. 8 Q Okay. So first of all, with the site visits, 9 about roughly how many site visits related to PEX 10 products did NIBCO perform then in 2012? 11 A Well, I don't -- I don't remember. I just 12 don't remember how many we were doing then. 13 Q Okay. Let's put it this way, maybe it's 14 easier. In 2012, for all the PERs that were generated 15 relating to PEX tubing, what percentage of those PERs 16 did NIBCO perform a site visit? 17 A I don't -- a small percentage. I just don't 18 remember. 19 Q So it didn't become, say, the standard 20 practice? 21 A No. And -- and even -- even when I left, it 22 wasn't a standard practice to go out every -- every 23 time. But if -- certainly if it was requested by a 24 plumbing contractor or a homeowner or one of our 25 salespeople, we would make every effort to do it.</p>	<p style="text-align: right;">Page 112</p> <p>1 A Yeah, yeah. 2 Q -- of the water. So these would have all been 3 used, though, when NIBCO was doing an actual site 4 inspection of the -- 5 A Well, we probably didn't start doing that 6 until it was after 2012, probably more like 20 -- maybe 7 2013 is when we started doing that -- 8 Q But you still -- 9 A -- in earnest. 10 Q I'm sorry. I didn't mean to cut off the last 11 part of your question. But you're using these 12 instruments when someone from NIBCO is doing a site 13 inspection, correct? In other words, you're not using 14 the pyrometer, the pressure gauge when, you know, Debbie 15 Premus is evaluating a piece of pipe in Lebanon? 16 A No. Oh, no, no, because that -- that is -- 17 these are all things that you have to use at the site 18 where the product's being used. It wouldn't help you at 19 all in the evaluation at the lab. 20 Q Okay. And for the PERs that were being 21 generated in 2012, 2013, that timeframe for PEX 22 products, I think you said it was still, you know, a 23 relatively small fraction of the PERs where a site visit 24 was occurring, correct? 25 A I believe so. I just don't remember. But I</p>
<p style="text-align: right;">Page 111</p> <p>1 Q You also mentioned some new instrumentation. 2 What new instrumentation did NIBCO obtain to help in 3 this evaluation process? 4 A Well, we -- we purchased a pressure gauge that 5 has a data logger on it, and we would leave the pressure 6 gauge on the house for two to three days, sometimes 7 four, and it would evaluate what the water pressure is 8 over -- over that time period, you know. It can tell if 9 there's been spikes in water pressure, what the average 10 water pressure is. We also, just in the course of going 11 out and visiting installations, you know, we got better 12 at -- at noticing common mistakes that plumbers do, 13 like, bending it too much or not allowing for expansion 14 and contraction. We also purchased a pyrometer. A 15 pyrometer is an instrument that uses infra-red to -- to 16 measure the temperature of -- of an object. In this 17 case we're checking the temperature of the water coming 18 out of the water heater, make sure the water heater 19 wasn't set too high. So those are some of the things. 20 And then we would also check -- we had instruments that 21 would allow us to evaluate the chlorine concentration in 22 the water and other water qualities. 23 Q Okay. So these instruments that you mentioned 24 a few, the pressure gauge, the pyrometer and then an 25 instrument to measure the chlorine level --</p>	<p style="text-align: right;">Page 113</p> <p>1 don't -- I really don't remember how -- how many, what 2 percent we were going out to investigate. 3 Q Well, okay. So -- 4 A But there's one, you know, Tom Coe would do 5 these inspections, and there's a limit to how many times 6 he could go. And so I'm thinking it was, you know, that 7 no more than, you know, 12 to 18 in a year or so. 8 Q Okay. So regardless of what the exact numbers 9 were -- 10 A Sure. 11 Q Let's say for the PERs where an evaluation was 12 made without a site inspection, how was NIBCO able to 13 provide more detail to the customer than it was able to 14 provide in 2008 when this e-mail was written? 15 A Without an inspection? 16 Q Yeah. And the reason I ask is you -- when we 17 were talking about what Ken was saying in the e-mail, 18 you said, you know, at this point it's true, but then in 19 subsequent years we developed, you know, better ways to 20 determine the causes and more things we could do. And 21 it was the site inspections and then also, 22 instrumentation that related to the site inspection. So 23 I'm wondering aside from when a site inspection 24 occurred, when it didn't occur how was NIBCO able to 25 provide more detail to the customer?</p>

Page 114

1 A Well, I don't think there was much of a change
2 there in the report that our technical services people
3 sent, because, again, they're just looking at, you know,
4 the piece itself. There may have been some incremental
5 improvements just because you've now been looking at
6 this for, you know, going on eight years or so and you
7 get a little bit better at it. But, I think that
8 without a site visit, you can't really comment too much
9 on what you think the root cause is, because you don't
10 know.

11 Q Okay. So for a customer who has a PEX tubing
12 failure, where no site visit occurs, and the evaluation
13 of the claim is done solely in Lebanon facility, let's
14 say?

15 A Uh-huh.

16 Q And then that customer received a letter from
17 NIBCO with the result of its investigation. In that
18 instance, how would that letter that NIBCO sends have
19 been different in 2008 versus 2013?

20 A Well, I -- I don't know exactly how it would
21 be different, but I -- I do know that we got better at
22 -- okay. An example is that early on, if people had an
23 issue with a piece of PEX tubing, it was not uncommon
24 for them to send us a piece as long as this pad, you
25 know, about six inches. And as time went by, you know,

Page 115

1 we asked them to send a longer piece, so that if there
2 were some clues, if there was some gouging or something
3 had happened to the tubing, we'd be in a better position
4 to do that. So I think there were probably some
5 improvement over 2008 without a site inspection, but --
6 but, you know probably not appreciable, you know,
7 increase in information, only because you just don't
8 know.

9 Q Okay. So the, I guess, level of detail in the
10 report --

11 A Yeah.

12 Q -- in those instances would have been pretty
13 similar?

14 A I mean, most of the -- when tubing fails and,
15 you know, I'm sure you've looked at these reports. In
16 most cases, it is an oxidative-type failure. That is,
17 if PEX tubing's been exposed to high water pressure or
18 exposed to a chemical in the water or too high a
19 chlorine levels, it's usually going to result in an
20 oxidated failure.

21 Q And is it true that an oxidated failure is a -
22 - it's a failure mechanism rather than a cause of
23 failure?

24 MR. KUHLMAN: Object to form.

25 A I guess I don't understand the question.

Page 116

1 Q So an oxidated failure could be due to over
2 pressurization or temperature being too high in the
3 water, right?

4 A That, yeah, or -- or a -- or if the tubing has
5 been stressed in some way that it compromised it to
6 allow it to be attacked, it could be because of that as
7 well.

8 Q Could an oxidated failure also result from a
9 manufacturing defect?

10 A It's possible, but pretty rare.

11 Q Okay. Which is in theoretical sense?

12 A Yeah. Like, if for some reason -- like, if we
13 had forgotten to send a reel to E-BEAM Services and sent
14 it out -- that -- that never happened. I don't think we
15 ever sent any tubing out that wasn't cross-linked, but
16 to answer your question, that is an example where that
17 could have occurred.

18 Q So the fact that an oxidative failure occurred
19 could be due to field conditions, or it could be due to
20 a manufacturing defect depending on the specific
21 circumstances in that case, right?

22 A Yes.

23 Q Regardless of NIBCO's ability to provide more
24 detail based on some of the improvements that you
25 mentioned in 2013, did NIBCO still have an interest in

Page 117

1 keeping the information it was sharing with customers
2 minimal to protect NIBCO from a legal standpoint?

3 A Well, I think that we wanted to be -- we want
4 to be accurate in our assessment, and we -- we did start
5 to put in possible causes and in reaction to, you know,
6 this kind of issue where we put in a statement where we
7 recommended that customers check to see if their
8 pressure relief valve was working, did they have an
9 expansion tank installed in their home. So I'm sorry,
10 I've been away from the business for two years. A lot
11 of these things are coming to me. We did start adding
12 some language to give the homeowner or the plumber some
13 -- some possible avenues to look at.

14 Q Do you recall any instances where the possible
15 causes that were shared with the homeowner included a
16 manufacturing defect?

17 A No, unless there was a -- no, I can't, you
18 know, other than, you know, we did talk about that there
19 -- there was a sample that the cross-linking was lower.
20 Now, we don't know if that caused that failure or not,
21 but we assumed responsibility for that. And if -- if we
22 -- there may have been some cases where we felt like if
23 there was a die line in the tubing that I talked about
24 earlier -- yeah, if there was a manufacturing defect, we
25 would, you know, take responsibility for it.

Page 118

Page 120

1 Q Is there any one at NIBCO responsible for
2 tracking trends in PERs?
3 A Yeah. Debbie Premus tracks trends.
4 Q Okay. With respect to PEX products
5 specifically when you were the GM, would she apprise you
6 of those trends as they related to the PEX products?
7 A Oh, yeah. I got a monthly report.
8 Q So what did that monthly report contain?
9 A Just it was like a Pareto chart. It had, you
10 know, the number of PERs we received and what the
11 disposition was and how many of this type and, you know,
12 different, you know, causes.
13 Q Okay. Do you recall, sitting here, any trend
14 that appeared in the PERs relating to PEX tubing at that
15 time?
16 A No. It kind of varied from, you know, year to
17 year. You know, most PEX failures, regardless of the
18 root cause, are oxidative failures, so there were always
19 a lot of those, then, you know, sprinkled in with some,
20 you know, obvious, you know, mis-installation of the
21 product or, you know, things like I -- I -- I don't
22 remember, you know, all the specifics of those reports,
23 or -- and I don't think there was any particular one
24 that was growing or declining, you know, as far as a
25 trend.

Page 119

1 Q Was there any way that NIBCO tracked customer
2 complaints outside of the PER process itself?
3 A I would -- I'm not aware.
4 Q Okay. So at least in your capacity, your only
5 exposure to warranty claims or customers' complaints was
6 through PERs?
7 A Yes. Correct. And all the other NIBCO
8 products go through the same process, of course.
9 Q So it's not exclusive to PEX?
10 A Correct.
11 Q And in order for a PER to be initiated, the
12 customer has to contact NIBCO and then send in an
13 example of the defective product, right?
14 A Yes.
15 Q Okay. So if a customer decides not to send a
16 sample in, doesn't want to, isn't able to, whatever it
17 is, would a PER still be initiated for that complaint?
18 A Well, that's a good question, and I'm -- I'm
19 sure there are times where we've issued -- someone's
20 called, we've given a PER number, which is basically a
21 tracking number, and they never sent anything in. But
22 I'm sure that has happened.
23 Q Okay.
24 A But I -- I don't know how many times.
25 Q And then I guess that PER, obviously, there

1 wouldn't be an evaluation as to what the cause of the
2 failure was, because --
3 A Yeah.
4 Q -- it never occurred, correct?
5 A That probably does not happen very often.
6 Q And obviously, if someone has an issue of
7 failure of NIBCO PEX tubing and then does not contact
8 NIBCO and simply has -- you know, brings a plumber out
9 and has them replace the tubing, NIBCO's not going to
10 have a PER for that, right?
11 A Correct.
12 Q In 2006 when customers sent in failed --
13 returned failed samples to NIBCO for PEX tubing, where
14 did those samples go?
15 A Well, I think that at the time they were -- I
16 think that we had them sending tubing to the plant. And
17 everything else, like, fittings and other products, were
18 going to our lab in Elkhart, Indiana.
19 Q So the tubing was the only PEX product that
20 was being evaluated in Lebanon at that point?
21 A Correct.
22 Q Why was that the case? Why were, say, PEX
23 fittings going to Elkhart but the PEX tubing was going
24 to Lebanon?
25 A Well, we've been in the metal fittings

Page 121

1 business for a long time, and the -- the metal PEX
2 fittings that we sell are a source product, so we just
3 felt like we had better technical people in Elkhart to
4 evaluate metal fittings than -- than a plastics plant.
5 Q And then at some point in time, did the PEX
6 tubing samples also start going to Elkhart?
7 A Yes.
8 Q About when?
9 A Probably around 2012 or so, if I'm to guess.
10 Q Why was that change made?
11 A Well, I'm not exactly sure. I know our
12 engineering department made that -- made that decision,
13 and I'm not exactly sure why, but I -- I think just to
14 -- I think that all -- in almost all cases, other NIBCO
15 products all go to Elkhart for evaluation, so I think
16 they -- I think that early on, you got to understand
17 when we acquired the assets of CPI, a lot of the
18 technical people up in our lab in Elkhart didn't know
19 much about PEX, and as time went by, they -- their skill
20 level increased, and I think we got to a point where we
21 felt like, you know, we ought to have those people
22 understand plastics or PEX tubing, at least, and they --
23 they are competent enough to evaluate it.
24 Q In 2012, let's say, in your view, who would
25 have been the person at NIBCO who was most knowledgeable

<p style="text-align: right;">Page 122</p> <p>1 regarding the failure mechanisms of PEX tubing?</p> <p>2 A Well, I think -- I think that Debbie Premus,</p> <p>3 certainly from looking at the product, and then we had</p> <p>4 one other polymer chemist, Earl Sexton, was very good at</p> <p>5 looking at the product. The best person for going to a</p> <p>6 site and seeing the installation and evaluating whether,</p> <p>7 you know, the pressure relief valve is working or not or</p> <p>8 was -- is Tom Coe. That kind of became his area of</p> <p>9 expertise.</p> <p>10 Q So then what -- is Earl Sexton in Elkhart?</p> <p>11 A Yes.</p> <p>12 Q So when that change was made and the samples</p> <p>13 started going to Elkhart instead of Lebanon, does that</p> <p>14 mean that Earl started analyzing them instead of Debbie</p> <p>15 or...</p> <p>16 A You know, I'm not sure if Earl was evaluating</p> <p>17 them or not. We have other people there. I don't know,</p> <p>18 to tell you the truth.</p> <p>19 Q Okay. But at least as of the switch to</p> <p>20 Elkhart, Debbie Premus was no longer evaluating the</p> <p>21 failed return samples, right?</p> <p>22 A Correct.</p> <p>23 Q To your knowledge, did the evaluation process</p> <p>24 change at all when, you know, it moved from Lebanon to</p> <p>25 Elkhart for PEX tubing?</p>	<p style="text-align: right;">Page 124</p> <p>1 would usually either have an NSF or IAPMO listing and</p> <p>2 then a CSA listing, you know, for Canadian standards.</p> <p>3 Q Okay. Outside of PEX, with respect to other</p> <p>4 NIBCO products, are there examples of products where</p> <p>5 NIBCO's maintaining multiple listings concurrently</p> <p>6 within the United States market?</p> <p>7 A Well, you know, I think that with -- I think</p> <p>8 often with -- I'm trying to think with plastic fittings</p> <p>9 if we -- if we did or not. I think with the industrial</p> <p>10 products we have multiple listings, but I'm not -- you</p> <p>11 know, I just don't remember, Kyle.</p> <p>12 Q Okay.</p> <p>13 A Sorry.</p> <p>14 Q So with respect to products being sold in the</p> <p>15 United States market, you can't think of any specific</p> <p>16 products where NIBCO maintains multiple listings --</p> <p>17 A Yeah.</p> <p>18 Q -- in the United States --</p> <p>19 A I know that we have multiple listings with</p> <p>20 most products, but whether there's two for the United</p> <p>21 States or three, you know, I don't know.</p> <p>22 Q Okay. Not one off the top of your head --</p> <p>23 A No.</p> <p>24 Q -- that you can think of, at least?</p> <p>25 A No, uh-uh.</p>
<p style="text-align: right;">Page 123</p> <p>1 A No.</p> <p>2 Q So is it conducted in the same way, the</p> <p>3 investigation, just in a different place?</p> <p>4 A Correct.</p> <p>5 MR. KUHLMAN: We getting close to lunch.</p> <p>6 MR. SHAMBERG: Yeah.</p> <p>7 MR. KULHMAN: Want to go to 11:30?</p> <p>8 MR. SHAMBERG: Now's a good time. I'm going to</p> <p>9 go to something else. Let's go off.</p> <p>10 (OFF THE RECORD)</p> <p>11 BY MR. SHAMBERG:</p> <p>12 Q Okay. So Randy, before we go onto some</p> <p>13 additional topics, there were just a few things we</p> <p>14 discussed before the lunch break that I wanted to follow</p> <p>15 up on and get some clarification. One of the things</p> <p>16 that we were talking about is the maintenance of</p> <p>17 multiple listings for the NIBCO product, and the fact</p> <p>18 that maintaining multiple listings isn't exclusive to</p> <p>19 PEX products at NIBCO; do you recall that testimony?</p> <p>20 A Yes.</p> <p>21 Q And I believe you used an example for an</p> <p>22 industrial plastics product that was maintained in</p> <p>23 multiple listings. Can you remind me of what those</p> <p>24 listings were in that example you used?</p> <p>25 A Well, I -- I know that with those products, we</p>	<p style="text-align: right;">Page 125</p> <p>1 Q We also talked about the report that was</p> <p>2 authored by David Bobo back in 2009?</p> <p>3 A Yes.</p> <p>4 Q Regarding the pipe development strategy?</p> <p>5 A Yes.</p> <p>6 Q What step -- so that report was circulated,</p> <p>7 you read the report at the time, right?</p> <p>8 A Yes.</p> <p>9 Q Do you know who else within NIBCO that report</p> <p>10 would have been circulated to?</p> <p>11 A Well, Gary Wilson was David Bobo's boss, so --</p> <p>12 and I specifically remember Gary being at a meeting, so</p> <p>13 the only ones that for sure that I know, well, I can</p> <p>14 remember, you know, having -- when Jana came and gave us</p> <p>15 a proposal and then David wrote his recommendation, the</p> <p>16 only people for sure that would have been in there would</p> <p>17 be David, Gary, and myself. There might have been some</p> <p>18 others, but I can't remember.</p> <p>19 Q What action did NIBCO take in response to that</p> <p>20 Bobo report, if any?</p> <p>21 A Well, we started working on the reformulation</p> <p>22 of PEXc, and we -- we did start the project to look at</p> <p>23 the E-BEAM process, and we hired at least one or two</p> <p>24 experts to help us understand it better. And those were</p> <p>25 the -- were the main -- the main things that we did.</p>

<p style="text-align: right;">Page 126</p> <p>1 Q What knowledge did NIBCO gain about the E-BEAM 2 process from those experts who were retained? 3 A Well, you know, I don't remember the last 4 report, but what we learned was that the process was -- 5 it was very closely controlled, that there was very 6 little variability in the E-BEAM process. And so we 7 came away with -- you know, it answers those questions 8 that we had, and we felt a lot more confident about it, 9 you know. Not -- I mean, there was no reason to not be 10 confident, but we felt confident after we knew, because 11 before we just didn't -- had no basis of knowing. We 12 were basically, you know, going on E-BEAM's, you know, 13 recommendations of what, you know, what was the best 14 practice. 15 Q Do you know whether there are industry 16 standards that cover the degree of cross-linking that's 17 necessary for PEXc tubing? 18 A Well, yeah, yeah. And I don't know which 19 standard it is, but there -- I think it's -- it has to 20 have a minimum of like 88 -- it would be 82 to 88 21 percent cross-linking. But that -- that governs all 22 PEX, regardless of A, B, and C, so there's a minimum 23 cross-linking that you have to achieve. 24 Q Okay. Do you know about where in that range 25 NIBCO's gel content historically fell?</p>	<p style="text-align: right;">Page 128</p> <p>1 Q And we also discussed kind of the process when 2 no site visit occurs, the process that NIBCO uses to 3 determine what the cause of a particular failure is? 4 A Yes. 5 Q When NIBCO makes the determinations that 6 improper installation was the cause of a particular 7 failure when no site visit has occurred, what criteria 8 does NIBCO use to reach that conclusion? 9 A Well, it would -- I don't think there were a 10 lot where that occurred, because I think most times 11 there wasn't enough evidence to determine what -- what 12 the root cause was. We could only speculate on certain 13 things and give the homeowner and end-user some -- and 14 plumbers some guidelines on what the possible suspects 15 were and what to look for. But I think that if -- you 16 know, certainly if there was some gouging of the 17 material, you know, we try to have people submit as long 18 of a sample as they could so that we could take a look 19 at the full piece, and then sometimes that revealed 20 things that may have occurred. 21 Q Was there a particular criteria that NIBCO 22 used to determine whether installation, improper 23 installation caused an oxidative-type failure, to your 24 knowledge? 25 A Well, no specific criteria, but I -- I think</p>
<p style="text-align: right;">Page 127</p> <p>1 A Well, I think it -- I think it was in the -- I 2 mean, it was above the minimum. I don't -- I think that 3 we were -- I can't remember how much above the minimum 4 we were, but it was probably, like, maybe 25 percent 5 above the minimum. 6 Q 25 percent? I just want to understand that. I 7 think you had said that your understanding was something 8 like 82 to 88 percent? 9 A Well, you know, again, I really don't 10 remember. I'd say that if it was -- well, I just don't 11 remember, to tell you the truth. But I think that we 12 were -- you know, we were above the minimum, but it 13 wasn't like if it was 85, I don't think we were at 100. 14 If it was 85, we were, like, around 90 or so, something 15 like that. 16 Q You were comfortable with the -- 17 A Yes. 18 Q -- gel content level of the PEXc tubing? 19 A Oh, absolutely. Yeah. 20 Q We also talked a little bit about the PER 21 evaluation process and the fact that site visits 22 sometimes occur and sometimes don't? 23 A Yes. 24 Q Remember talking about that? 25 A Uh-huh.</p>	<p style="text-align: right;">Page 129</p> <p>1 that I do recall sometimes where by looking at the 2 tubing, if it had been overbent, depending on where the 3 failure took place and if it was on a bend, you know, we 4 could narrow it down to something like that. But if -- 5 with most of the oxidative-type failures, if they were 6 caused by a water condition or a pressure condition or a 7 temperature condition, there really isn't any way the 8 lab can determine that just by looking at a piece of 9 plastic, you know. 10 Q And then the last thing that I wanted to go 11 back to is we talked about the transition from field 12 returned samples going to Lebanon and then to Elkhart 13 around 2012? 14 A Yes. 15 Q And you had said that by 2012 when that 16 transition occurred, the analysts in Elkhart had gotten 17 a little bit more familiar with the product and a little 18 bit more seasoned in doing that failure analysis; is 19 that fair? 20 MR. KUHLMAN: Object to form. 21 A Well, I think that they -- I think that was 22 maybe part of it. And I think also, it was just an 23 effort on our part to be standard -- standard procedure 24 across all of the company. 25 Q Okay. To the extent that the analysts in</p>

<p style="text-align: right;">Page 130</p> <p>1 Elkhart had gained some experience, how had they gained 2 that experience prior to 2012? 3 A Uh-huh. Well, you know, I think sometime -- I 4 think that they had a collaborative relationship with 5 Debbie and then, you know, sometimes Debbie would look 6 at a piece and be -- you know, be kind of -- say, "I 7 don't know if I understand this. Maybe I ought to have 8 someone else take a look at it," and she'd send samples 9 up to Elkhart or Rural Sexton or someone else would look 10 at it. So I think it was through that kind of 11 collaborative efforts that they -- they, you know, gain 12 that expertise. 13 Q Okay. So I want to ask you about another 14 document. 15 (EXHIBIT 4 MARKED FOR IDENTIFICATION) 16 A Thank you. Okay. 17 Q So first question is: Have you ever seen this 18 document before? 19 A You know, I'm familiar with all these issues, 20 but I don't know if I saw this document. I don't know 21 who the author of the document is. 22 Q That was going to be my next question: Who 23 wrote it? 24 A Yeah. I -- I don't know. It's not me. 25 Q But these were at least topics that you recall</p>	<p style="text-align: right;">Page 132</p> <p>1 resistance of anyone in the industry. And then that 2 last integer, which is actually 08 is the hydrostatic 3 pressure. And so we were -- the discussions we were 4 having is that if we needed to have a 5, a 100 percent 5 re-cir product, what would be the different options to 6 achieve that. And so one is to switch to PEXb from the 7 -- was it Silone or Sayco, one of the two -- yeah, Sayco 8 or the Lyondell material from Europe or to reformulate 9 PEXc. So this was just exploring options. And this is 10 all contingency planning if -- if suddenly, you know, 11 you had to have the 5. 12 Q Okay. 13 A 100 percent re-cir. 14 Q These different options, the three options in 15 this document are different approaches to achieve that 5 16 rating -- 17 A Yes. 18 Q -- for that first number? 19 A Yeah. 20 Q Was the PEX -- was one of these options 21 ultimately implemented? 22 A We actually tried option 1, and we sold that 23 product for at least a year, but we -- I guess since 24 I've left, they've stopped selling this particular 25 product.</p>
<p style="text-align: right;">Page 131</p> <p>1 having been discussed at NIBCO? 2 A Yeah. 3 Q And would the discussion have been around this 4 time that the document is dated, October of 2012? 5 A Yes. 6 Q Okay. So I want to ask about this option 2 7 here on the first page to reformulate the PEXc? 8 A Yeah. 9 Q So the document seems to be recognizing that 10 the reformulation project that we've been discussing has 11 already occurred and that the 3308-graded product is 12 being produced, but it seems to be discussing 13 potentially another reformulation? 14 A Yes. 15 Q Is that something that NIBCO was discussing 16 internally at this point? 17 A Yes. 18 Q Okay. And what were the reasons for 19 considering another reformulation of the product? 20 A Well, you know, this is all coming back to me 21 now. That first number involves the -- the 22 recirculation standard, so we started with a 1. We had 23 a 3, which is 50 percent re-cir and the 5 is 100 percent 24 re-cir. The second number, the 3, is the UV resistance. 25 And we had, at this point, I think we had the highest UV</p>	<p style="text-align: right;">Page 133</p> <p>1 Q Okay. And do you know why they stopped 2 selling the product? 3 A Well, I think that, you know, we had a steam - 4 - you know, in the -- in the description here it talks 5 about a steam chamber. We had a steam chamber made. We 6 made a fairly good investment in that, and the steam 7 chamber just wasn't delivering the kind of cross- 8 linking at the plant that we wanted to see, and I think 9 -- and I've been away from NIBCO, so I don't know all 10 the details of this, but I think we just said, you know, 11 we can either continue to work on this and struggle with 12 it, or we can just go back to what we know, and so I 13 think they decided to go back to what they know. 14 Q Was option 2 ever implemented? 15 A No. 16 Q Why not? 17 A Not exactly -- you know, I think that we felt 18 like we had a good product. You know, we had a very 19 high UV resistance, higher than anyone else. We had the 20 best hydrostatic resistance of any competitive product, 21 so I guess -- this is my feeling at the time, maybe not 22 others. My feeling was this is a pretty good product, 23 and I don't think we really need the 5, and we can 24 certainly sell these other features that other people 25 don't have. But then, you know, there was still some</p>

<p style="text-align: right;">Page 134</p> <p>1 demand for the 5 product, and so you know, we thought 2 that by becoming also a PEXb manufacturer in addition to 3 a PEXc, that would give us a real competitive -- an edge 4 over our competitors. 5 Q Is NIBCO 1006 tubing appropriate for use in a 6 continuous recirculation systems? 7 A Yeah. And it's been used. You got to 8 remember, early on everyone was at 1006, and it was 9 being used all the time. Not just our tubing, but 10 tubing of other companies, Lewknor, Viega, Zurn was all 11 being used in recirculation systems. But we -- we've 12 always recommended that if you put a recirculation -- 13 100 percent recirculation system in your home, that you 14 add a timer and probably -- and try to recirculate it 25 15 percent of the time, because it's very energy efficient 16 to be reheating water 100 percent of the time just so 17 you can have hot water, you know, when you get up in the 18 morning. So you know, we -- we just think it's kind -- 19 it's kind of overkill, and so that's always been our 20 recommendation. 21 Q So the 1 that started those integers, the 1 in 22 the 1006? 23 A Yes. 24 Q I believe you said indicates that the product 25 is appropriate for use in a recirculation system where</p>	<p style="text-align: right;">Page 136</p> <p>1 that we -- we got to a point where we talked more about 2 it, but I don't know exactly when. You know, it was 3 probably in that 2010, 2012 timeframe, something like 4 that. 5 Q So prior to 2010 and 2012 if a customer came 6 to NIBCO and said, "I've got a plumbing system that's 7 set up for 100 percent continuous recirculation. Can I 8 use your 1006 pipe in my system," what would you have 9 said? 10 MR. KUHLMAN: Object to form. 11 A Well, it depends on the -- you know, I think 12 that the -- I'm trying to remember when we came up with 13 the 1, 3, and 5. But prior to having the have 1, 3, and 14 5, I think that we -- well, you know, I just don't -- I 15 just don't really remember. I think that we've always 16 recommended that you should only recirculate water in a 17 system 25 percent of the time because of the energy 18 efficiency. It's just -- it's just so wasteful to heat 19 water, you know, 24 hours a day in a tubing system. It 20 just makes no sense when you're only in the shower in 21 the morning and maybe in the evening, you know. 22 (EXHIBIT 5 MARKED FOR IDENTIFICATION) 23 A Thank you. Okay. 24 Q Okay. So this is a document that's titled 25 "DURA-PEX Chlorine Resistance Performance Q&A" dated</p>
<p style="text-align: right;">Page 135</p> <p>1 it's 25 percent hot water? 2 A Yes. 3 Q -- recirculating? 4 A Yes. 5 Q So is the 1-rated pipe appropriate for use is 6 a system where hot water is needed to circulate 50 7 percent of the time? 8 A Well, I think, you know, the standards have 9 evolved over the -- over time, and so like, you know, I 10 think that today, if you've got a 5, if you're going to 11 have a 100 percent re-cir system. You probably ought to 12 use something that has the 5, and if it's 50 percent 13 use, a 3. And if it's 1, you probably have a 25 14 percent. But at the time -- at one time, I'm talking 15 about, like, ten years ago, everyone was at 1006, and 16 many people were putting PEX in recirculation systems, 17 and I'm sure that many of them were set to recirculate 18 100 percent of the time. I know that was happening. But 19 it's more an indication of how our industry has evolved 20 and the standards have, you know, matured over time. 21 Q At what point did NIBCO begin recommending 22 that customers not use the 1-rated pipe in recirculation 23 systems with over 25 percent hot water recirculation? 24 A I don't -- I don't remember exactly. I mean, 25 you know, during my tenure as a general manager I know</p>	<p style="text-align: right;">Page 137</p> <p>1 March 1, 2008. Have you seen this document before? 2 A Yes. 3 Q Do you know who drafted the document? 4 A I'm -- I'm not sure. I would -- I would think 5 -- well, this might have been drafted -- well, I had 6 just -- either just become general manager or was a 7 general manager, but I think that probably our technical 8 people put this together. But I do remember seeing it, 9 yes. 10 Q Do you know the reason that this document was 11 created? 12 A Well, I think it's an information piece to 13 talk about, you know, chlorine resistance in PEX tubing. 14 Q Okay. So would that be to -- directed to 15 customers, in other words, to talk to customers about 16 some of the features of the tubing? 17 A Yes. And education. You know, because there 18 was, as the document states, there's P 171 and F 2023, 19 and there's just a lot of confusion out there about 20 standards and testing, and so I think the purpose of 21 this document was just to kind of clarify things for our 22 customers. 23 Q Okay. That makes sense. So on the first page 24 here, the different numbered points, there's number 2, 25 "Is DURA-PEX approved for use in chlorinated water</p>

<p style="text-align: right;">Page 138</p> <p>1 systems?" And then do you see the second paragraph in 2 that section where it says, "NIBCO DURA-PEX meets all F 3 876 requirements for use in portable water systems"; do 4 you see that language? 5 A Yes. 6 Q And it goes on to say, "Independent testing 7 through NSF International confirms that NIBCO DURA-PEX 8 not only meets but exceeds the 50-year minimum time-to- 9 failure when tested for ASTM F 2023." Now, at this 10 time, that last statement wasn't true of the red and 11 orange pipe, correct? 12 MR. KUHLMAN: Object to form. 13 A No. I don't think you can say that, because 14 we had been given -- the tubing had been certified by 15 NSF, and we'd been given the listing on all of those. I 16 know that there was that information on that one report, 17 but, again, NSF analyzes the data, determines if the 18 tubing meets or does not meet the requirement. So you 19 know, I didn't -- I'm not a technical guy. I don't 20 understand everything about that particular test, but 21 NSF told us we could represent our tubing as meeting 50 22 years or greater, and that's why it's in this letter. 23 Q This letter is actually talking about the 24 testing itself rather than the certification, right? 25 This independent testing confirmed the DURA-PEX exceeds</p>	<p style="text-align: right;">Page 140</p> <p>1 that it was selling at the time was appropriate for use 2 in continuous recirculation systems? 3 A Yes. 4 Q And the document doesn't contain any 5 disclaimer that the customer should add a timer and to 6 limit it to 25 percent, right? 7 A No, it does not. 8 Q NIBCO provides installation manuals for its 9 products; is that true? 10 A Yes. 11 Q And that's also true for the PEXc tubing, 12 right? 13 A Yes. 14 Q At some point, did NIBCO's installation manual 15 begin placing restrictions on the use of the 1006 pipe 16 in recirculation systems generally? 17 A Well, you know, these documents are constantly 18 evolving and, you know, we did, as I recall, had some 19 line reads that we recommend, you know, 25 percent, you 20 know, recirculation, you know, with our -- with our 21 product. And so -- and there have been other -- you 22 know, these are evolving documents, subject to change, 23 you know, as time goes by. 24 Q Okay. In that same section, that number 4, it 25 says, "There are many factors that can affect the</p>
<p style="text-align: right;">Page 139</p> <p>1 the 50-year minimum time-to-failure? 2 A Well, -- 3 Q That's at least what the document says, right? 4 A -- testing is -- 5 MR. KUHLMAN: Object to form. 6 A -- is part of that process, yes. 7 Q And at least based on the testing, the red and 8 orange pipe had failed the testing, correct? 9 MR. KUHLMAN: Object to form. 10 A I -- I don't know what that test was or what 11 those results mean. I think they were both in the high 12 40s. NSF, for whatever reason, and I don't know why, 13 but they allowed us to state that -- that both of those 14 colors met F 2023, and so I just got to go by their 15 determination on this, you know -- you know. 16 Q Okay. So getting back to what we were just 17 talking about, if you turn to the next page, there's a 18 number 4, "Is DURA-PEX recommended for use in continuous 19 recirculation systems?" And the document notes that, 20 "There are many factors that can affect the performance 21 of the pipes." Then it goes onto say, "NIBCO DURA-PEX 22 has been installed in continuous recirculation systems 23 giving years of worry-free performance." So is it fair 24 to say that at least as of the date of this document, 25 March 1, 2008, NIBCO still believed that the 1006 pipe</p>	<p style="text-align: right;">Page 141</p> <p>1 performance of PEX including the aggressiveness of the 2 water." And that's a term that I've heard several NIBCO 3 employees refer to when seeing a document, "aggressive 4 water." Have you heard that term used before? 5 A Yes. 6 Q What does that term mean to you? What is 7 aggressive water? 8 A Well, I think it's the -- like, the pH of the 9 water, the acidic content of the water. You know, we do 10 know that there's some areas of the country where the 11 water can be, you know, particularly aggressive. I 12 think that we didn't sell much tubing into Las Vegas, 13 but I know that that was one area where some of our 14 competitors had some issues. So you know, we know that 15 that exists. 16 Q Are there other areas of the country that are 17 -- that NIBCO's aware are notable for having aggressive 18 water conditions? 19 A I -- I don't know. I mean, I don't think we 20 kept a map of it or anything like that. But I think 21 that, you know, it depends a lot on, you know, is the 22 water -- is it being treated by a -- typically, if 23 water's treated by municipalities, it's usually good 24 water. The thing you got to be careful there with 25 municipalities is a lot of times they'll -- they'll do</p>

<p style="text-align: right;">Page 142</p> <p>1 an overkill on the chlorine because municipalities are 2 concerned about the sanitation of the water and killing 3 all the germs, but they don't care about what the impact 4 might be on your plumbing system and everything else in 5 your house. So it's just -- it's very variable. 6 Q Are there any specific areas that you know of 7 what you describe as over-chlorinate the water? 8 A Well, there's none that I can -- I can -- I 9 can recall. A lot of times, it might be something as 10 simple as how close do you live to the water treatment 11 facility. I mean, that can have an impact on it. I 12 mean, over time chlorine dissipates. I think that with 13 a lot of our site inspections that we've done through 14 the years, I -- I'm not sure if I, you know, remember a 15 lot of cases where the chlorine was -- was at a very 16 high level. 17 Q Do you know what the highest chlorine level is 18 that you would recommend 1006 tubing being used on? 19 A I don't think there -- I don't know. I just 20 don't know enough about it to comment on that. 21 Q You mentioned earlier that aggressiveness has 22 to do with the pH level of the water. 23 A Yeah. 24 Q At what pH level would water become aggressive 25 versus not aggressive?</p>	<p style="text-align: right;">Page 144</p> <p>1 Q Okay. Is North Carolina a state in which 2 NIBCO was aware of aggressive water conditions? 3 A No. I don't think we were aware of aggressive 4 water conditions there, but we were aware of a lot of 5 homes built without any kind of pressure relief valves 6 or expansion tanks in the homes. 7 Q Okay. Were there failures in NIBCO tubing 8 occurring in that area? 9 A Well, it wasn't NIBCO tubing. It was mostly 10 tubing that had been produced by CPI before we acquired 11 the assets. And we did some investigative work, and 12 what we found out is that the builders, in order to cut 13 costs, did not put pressure relief valves or expansion 14 tanks on most of these homes, and that's an area of the 15 country that is known for high water pressure. And, you 16 know, we -- that's what we suspect happened. But it 17 wasn't our product, so -- but there were customers there 18 that we had done business with in the past and, you 19 know, we had -- we were in the PEX business, and we felt 20 an obligation to look into it and try to explain what 21 had happened. 22 Q For those CPI products, would there have been 23 any difference, material difference, in the product 24 whether it was manufactured by CPI or NIBCO, other than 25 the name of the tubing?</p>
<p style="text-align: right;">Page 143</p> <p>1 A You know, I don't really -- I don't know. 2 You'd have to talk to one of our technical people about 3 that. 4 Q Are there other factors that lends an 5 aggressiveness to water, other than pH? 6 A Well, no. I think that, you know, water 7 conditions are different everywhere and -- no, I don't 8 think so. 9 Q If a PER were initiated and Debbie or someone 10 else at the DURA lab in Elkhart were doing a review of a 11 sample of PEX tubing that had been sent in, it's a no 12 satisfaction, how would they go about determining the 13 aggressiveness of the water in the application that that 14 pipe may have been installed in? 15 A Well, I don't think you could determine that 16 from looking at the failure mode in the -- in the 17 tubing. I think you'd have to do a site visit to 18 determine that. And, Tom, that was another thing that 19 he had in his bag of instruments was, you know, to check 20 the pH of the water. 21 Q So then just based on an inspection of a 22 sample, you wouldn't be able -- NIBCO wouldn't be able 23 to say this failure was caused by aggressive water? 24 A It would -- it would -- it would be an 25 oxidative failure, yeah.</p>	<p style="text-align: right;">Page 145</p> <p>1 MR. KUHLMAN: Object to form. 2 A I just -- not knowing what CPI had done or any 3 kind of reformulation work that they may have done in 4 that -- in the years leading up to 2006, I -- I don't 5 know. 6 Q Yeah. And I don't want you to guess. 7 A I can't say it's the same thing, you know, 8 from May -- from May 2006 to June 2006 probably not much 9 difference, but I don't know what went on before then. 10 Q Okay. And I really -- 11 A And I really don't. 12 Q -- appreciate that. 13 A And I know that they changed. I know during 14 that period, you know, there were changes in raw 15 material suppliers, and I don't know -- I really don't 16 know the exact timing of all the product they sold in 17 North Carolina during that period, either. 18 Q All right. So I guess maybe a better way is 19 to say, do you know specifically of any differences 20 between the tubing that was manufactured by CPI in 2006 21 and -- 22 MR. KUHLMAN: Object to form. 23 Q -- tubing that was manufactured by NIBCO in 24 2008? 25 MR. KUHLMAN: Object to form.</p>

<p style="text-align: right;">Page 146</p> <p>1 A Yeah, I -- I don't know of any differences. 2 But if we're talking about North Carolina, all that 3 tubing was produced as much as eight to ten years before 4 NIBCO acquired the assets of CPI, and I know for a fact 5 that they had changed raw material suppliers, and there 6 had been some changes. And I don't know what other 7 changes they may have made in the E-BEAM dosage. There's 8 a number of variables that, you know, we just -- don't 9 know, because we weren't part of it. 10 Q Is the San Antonio area an area that has 11 particularly aggressive water? 12 A I don't know if there's aggressive water 13 there. I do know that San Antonio is an area that has 14 high water pressure. And in fact, the San Antonio 15 Waterworks, if you go to their website, they warn 16 consumers that their water -- the water pressure coming 17 out of their pumping stations can be well above code, 18 which is 80 psi, and they tell people to make sure that 19 they have a pressure relief valve, that it's working 20 properly, and you just have that protection against high 21 pressure entering your home. 22 Q What are the pressure specifications for the 23 1006 tubing? 24 A Well, you know, in our installation manual, if 25 -- if the water's not chlorinated, there really is --</p>	<p style="text-align: right;">Page 148</p> <p>1 standard throughout the United States that you don't 2 exceed 80 psi. 3 Q Okay. And that's also kind of the 4 specification for NIBCO tubing. So in other words, 5 NIBCO's facts for pressure are kind of tied to what the 6 national code is for pressure? 7 A Well, I don't know if "specification" is the 8 right word, but our recommended operating temperatures 9 are that. 10 Q Okay. So if over pressurization is determined 11 to be the cause of a particular failure, that means that 12 the pressure that caused that failure was exceeding that 13 UPC or IPC standard for municipal water operations; is 14 that fair? 15 A Yeah. Over time. PEX tubing, it will 16 withstand short term of very high pressures. In fact, I 17 think our tubing is rated for up to 200 psi, as is most 18 manufacturers. But that rating is on there in case 19 there's something catastrophic that happened and you 20 have like very high water pressure in your house, but 21 that's a safety factor so, you know, your pipes won't 22 immediately burst. But if you operate a PEX piping 23 system at say 120 psi or 150 psi day after day after 24 day, it's kind of like driving your car 150 miles an 25 hour every day. It's not going to last as long as it</p>
<p style="text-align: right;">Page 147</p> <p>1 there are no limits on the water pressure other than 2 what the tubing itself is rated. With chlorinated 3 water, we recommend -- and this is a recommendation we'd 4 make whether it's 100 -- we've kept it with 3308, and we 5 would have it for any type of PEX. You should never 6 exceed 80 psi because, first of all, that's the code, 7 and exceeding 80 psi actually will void warranties on 8 water heaters of some manufacturers and fixtures in a 9 home. So we -- we try to limit the pressure to what the 10 code allows, and we think that's a prudent step to take. 11 Q And when you say "what the code allows," which 12 code are you referring to? 13 A Well, it's the -- again, I'm not -- I'm not an 14 expert on these, but it's the national code, and it's 15 pretty much -- it's the -- oh, what is the name of it? 16 But each state -- each state adopts their codes, and 17 they usually adopt what the -- it's call the 18 international code. Seems strange, but it's not 19 international, but it's specific to the US, but most 20 states will adopt the international plumbing code. 21 Q Okay. So the 80 psi is pretty standard -- 22 A Yeah. 23 Q -- in the United States? 24 A It's either IPC or UPC. Universal plumbing 25 code, international plumbing code. Yeah, it's pretty</p>	<p style="text-align: right;">Page 149</p> <p>1 would if you drove at a reasonable speed, because it 2 just puts pressure on the -- on the tubing itself. So 3 that's why we place those limits. 4 Q Does Georgia have notably aggressive water? 5 A I don't know if they have aggressive water, 6 but that is another area where there's high water 7 pressure. I do -- I recall visiting a home in -- north 8 of Atlanta, and the water pressure at that house was up 9 to 165 psi, more than double what the code is. So I 10 know that that is an area that is known for high water 11 pressure. I don't know about the aggressiveness of the 12 water. 13 Q When did you visit that home when you went to 14 Georgia? 15 A I don't know. It was -- it was probably, 16 like, 2011 or 2012, something in that time period. 17 Q Why were you there? 18 A Well, my son lived in Atlanta and this is, 19 again, there was a PER that came through. I knew I was 20 going to be down there. We -- it sort of -- we had just 21 started to do more site visits, and I just visited a 22 home just so I could get a better understanding of 23 things and talk to the homeowner, because I just wanted 24 to gain an understanding what was -- what was happening. 25 So I put a pressure gauge on the home and left it for a</p>

<p style="text-align: right;">Page 150</p> <p>1 couple of days, and that's what we found. 2 (EXHIBIT 6 MARKED FOR IDENTIFICATION) 3 A Thank you. 4 Q So this document, I believe you've probably 5 seen before? 6 A Oh, yeah. I remember it well. 7 Q You wrote it, correct? 8 A Yes, I did. 9 Q First of all, who is this document directed 10 towards? Who was the audience for this document? 11 A It would be plumbing contractors and wholesale 12 distributors or anyone that sold PEX tubing. 13 Q Okay. And in here you're kind of, I guess, 14 giving some general information about the product 15 warranty and also state liability laws that tie -- 16 A Yeah -- 17 Q -- into -- 18 A Yeah. 19 Q -- product issues, and you say, "The purpose 20 of a product warranty is to cover the product itself. In 21 the event that a product proves to be defective in its 22 manufacture, the product warranty allows for repair or 23 replacement of such defective product." 24 A Yes. 25 Q So the warranty is essentially covering, you</p>	<p style="text-align: right;">Page 152</p> <p>1 MR. KUHLMAN: Object to form. 2 A You know, I don't remember the exact language, 3 but I do have to -- I would like to tell you what the 4 context of this letter was. We had one competitor that, 5 in their warranty, was specifically stating that we will 6 replace drywall, carpeting, furniture, you know, all 7 these things, and then the warranty was being kind of 8 used against us, because they were spelling out all 9 these different and sundry things that can go wrong and 10 saying, "We'll cover them." And so people would say, 11 "Well, I read your warranty, Randy, and it's -- you 12 know, you say that you cover these things, but, you 13 know, they're specifically saying carpet and furniture 14 and drywall, and you're not saying it." And so what I 15 was trying to do here is say, "Hey, guys, it doesn't 16 matter. You know, we're -- you know, we're liable for 17 these things." So that was the context of this letter 18 was to allay -- allay some fears that some people had 19 and kind of combat this competitor that was being very 20 explicit in the language of the warranty. And NIBCO, 21 we're part of a much bigger organization with a lot of 22 different products and, you know, if you look at our 23 warranties, you know, there's a lot of similarity 24 between them, and we weren't going to go in and add all 25 these things. And that's what this addressed.</p>
<p style="text-align: right;">Page 151</p> <p>1 know, the product itself in dealing with that 2 specifically, right? 3 A Yes. 4 Q But then you go on to say, "State product 5 liability law allows for the recovery of damages caused 6 by defectively manufactured products. Nothing has to be 7 done to afford you this protection. State law already 8 provides for it." 9 A Uh-huh. 10 Q So there, I guess you're telling the plumbing 11 contractors, other customers of NIBCO that if there's 12 damage to property that's caused by a defectively 13 manufactured NIBCO product, state liability law will 14 allow recovery for those damages? 15 A Yes. 16 MR. KUHLMAN: Object to form. 17 Q Does NIBCO have a warranty that covers the PEX 18 products? 19 A Yes. 20 Q What's the time period of that warranty? 21 A It's 25 years on tubing and ten years on 22 fittings and then, like, maybe one year on tools and 23 some of the other stuff. 24 Q Does the warranty allow for the recovery of 25 property damage under state product liability laws?</p>	<p style="text-align: right;">Page 153</p> <p>1 Q Okay. So this was basically -- the letter was 2 an attempt to say, "Okay. There's all these kinds of 3 property damages that could occur." 4 A Yeah. 5 Q "And even though they're not specifically 6 spelled out in the warranty, NIBCO will cover these 7 kinds of things?" 8 A Yes. 9 MR. KUHLMAN: Object to the form. 10 Q All right. Well, let's actually check out the 11 warranty. 12 A Okay. 13 Q See what it says. 14 (EXHIBIT 7 MARKED FOR IDENTIFICATION) 15 A Thank you. Okay. I'm ready. 16 Q So does this -- the language in NIBCO's 17 limited warranty that we're looking at comport with your 18 general understanding of the warranty? 19 A Yes. 20 Q And it's 25 years, right, for the tubing? 21 A Yes. 22 Q If NIBCO products are exclusively used in the 23 system, correct, that's 25 years? 24 A Yes. 25 Q Okay. And then if we look at the -- towards</p>

Page 154

1 the bottom of that last full paragraph where there's the
2 bold capitalized language it says, "To the extent
3 permitted by law, this warranty specifically excludes
4 incidental and consequential damages of every type and
5 description resulting from any claim defect in material
6 or workmanship, including but not limited to, personal
7 injuries and property damage -- damages"; is that what
8 the warranty says?

9 A Yes.

10 Q So how does that statement in the warranty
11 comport with your statement to customers in the letter
12 that state product liability laws will allow for the
13 recovery of those types of damages, including property
14 damage?

15 A Well, you know, I'm not an attorney, but I
16 mean, the NIBCO legal department obviously has approved
17 this warranty, and I know that I worked with them on
18 this letter. And so you know, I basically was going by
19 their advice and guidance in writing this letter, which
20 addressed the issue with a competitor's warranty.

21 Q Okay. And I certainly appreciate that you're
22 not a lawyer and that, you know, you didn't draft the
23 dry language and --

24 A Yeah, I know this -- this, you know, these
25 warranties typically are very, you know --

Page 155

1 Q They're not --

2 A -- draconian and protecting, and this is
3 certainly an example of one. But I guess this was the
4 kinder, gentler version.

5 Q Well, so based on just your -- as a non-
6 lawyer, based on --

7 A Right.

8 Q -- reading the warranty and specifically that
9 language that I just read out of it regarding property
10 damage, do you believe that the statement you made in
11 your July 2012 letter regarding recovery under state
12 product liability law is an accurate statement?

13 MR. KUHLMAN: Object to form.

14 A Well, that -- that's what I -- you know,
15 that's what I was counseled and the letter, if it wasn't
16 written -- it wasn't -- I mean, it was -- it was written
17 with a lot -- lot of help from our legal department, and
18 so I would -- these -- even though I'm on the letter, I
19 didn't write these words and this was, you know, what we
20 chose to communicate to our customers in consultation
21 with our legal staff.

22 Q So during your time as general manager of the
23 PEX products, for all the PERs that came in relating
24 specifically to the PEX tubing, on what percentage of
25 those PERs did NIBCO provide a payment to the customer

Page 156

1 for property damage that had resulted?

2 A I don't know. I mean, I know that there were
3 certainly some instances, you know, where we did, but I
4 don't -- it -- I have no idea what the percentage is.
5 Probably something very small I would think, because we
6 just didn't have, you know, issues like that.

7 Q Or at least issues with a determination that
8 was that it was a --

9 A Correct.

10 Q -- manufacturing design defect?

11 A Correct.

12 Q How would -- regardless of the number of times
13 it happened, how would NIBCO go about making the
14 determination as to whether that kind of payment would
15 be made?

16 A Well, it -- you know, it had to be our fault,
17 you know, or an obvious product defect. And our
18 technical services people, I mean, they're very good at
19 handling these issues, and they -- they took care of
20 taking care of the customer.

21 Q Okay. I guess I should ask --

22 A I mean, they weren't waiting for my approval,
23 you know.

24 Q That's what I was going to ask. Did you have
25 any involvement in determining whether a payment would

Page 157

1 be made for product --

2 A No. They would probably consult with me and
3 let me know, but, no, they went ahead and took care of
4 things.

5 Q Was there ever an instance where they had a
6 position on whether they should be paying property
7 damages, the technical people, and you disagreed with
8 their conclusion?

9 A No. No, I never refused.

10 MR. KUHLMAN: Okay if we go and break?

11 MR. SHAMBERG: Yes, sir.

12 (OFF THE RECORD)

13 BY MR. SHAMBERG:

14 Q So earlier we were talking about the site
15 inspections, and you said that typically Tom Coe was
16 kind of the go-to guy to do the site inspections?

17 A Yes.

18 Q What qualified Tom to be in the best position
19 to perform those inspections?

20 A Well, Tom has -- you know, he was an original
21 CPI associate, and he's been the product manager for --
22 I'm trying to think when he started with CPI. But he's
23 got, you know, a lot of experience, and he also is kind
24 of a -- kind of a handyman, you know. He's a woodworker
25 and does a lot of work at his home. And so the site

<p style="text-align: right;">Page 158</p> <p>1 inspections involve you to take readings, but you also 2 have to know a little bit about plumbing, and it's not 3 so much a technical-type job as a job of being able to 4 look at things, see a plumbing system and what it has or 5 doesn't have. And so he -- we thought that he'd be the 6 best person to do it. We didn't want anyone from sales 7 doing it, and our -- our engineers in Elkhart are 8 typically, you know, they're working on all kinds of 9 things other than PEX, so Tom was kind of a natural, you 10 know, person to do it. 11 Q What about Debbie Premus? 12 A Well, Debbie's responsibilities are at the 13 plant, you know. She's there to ensure that what we're 14 making on a day-to-day basis is -- is good product. So 15 we really needed her, you know, to stay in Lebanon. 16 Q Okay. And then we were also talking about 17 some areas that you said are kind of notable for having 18 high water pressure in North Carolina, San Antonio area, 19 Georgia, at least -- or at least parts of Georgia. 20 A Yes. 21 Q Does NIBCO have any kind of list of these 22 areas? I mean, you seemed to recognize particular 23 areas. Is there a comprehensive list of -- hey, here 24 are the places we've, you know, identified as having 25 high water pressure?</p>	<p style="text-align: right;">Page 160</p> <p>1 and then sometimes I'd go into communities. I can't 2 remember the town, but I was in a town in Alabama and 3 the guy said, "Hey, you know, our water pressure gets up 4 to 180 psi every night. Is that bad?" I go, yeah, 5 yeah. That's kind of bad. You might want to do 6 something about that. So these are just learnings from 7 being out there and selling this product. 8 Q So NIBSO sales department was for the PEX 9 products. Is that split up by area or region? 10 A Well, we -- every NIBCO salesperson would sell 11 PEX, and then we had Sunbelt Marketing who was an agent 12 for us, and we had another agent in the Northeast, and 13 then under me, I had regional PEX sales managers who 14 kind of directed the whole thing. He was kind of the 15 resident PEX expert. 16 Q And Sunbelt, I think you said was focused on 17 the Southeast; is that correct? 18 A Yes. 19 Q Was there a NIBCO associate or salesperson who 20 was assigned the Southeast region of the United States? 21 A Not really. I usually took responsibility for 22 that. I was the general manager, but I usually only 23 kept -- we have three regions. I had a person in the 24 central US and the western US, and then I usually took 25 care of the East, because of our agents who were located</p>
<p style="text-align: right;">Page 159</p> <p>1 A I don't think that we do. It was something 2 that I had, you know, discussed and wanted to, you know, 3 like, take a map and document it just so I have, you 4 know, a greater understanding of it, but I don't think 5 we ever got to that. At least not when I was there. I 6 don't know if they've done it since then. 7 Q Are there -- other than the ones you've 8 already discussed today, are there other areas within 9 the United States that you're aware of that are notable 10 for that -- 11 A Well, I think the Southeast in general is an 12 area where we've observed very high water pressure. 13 Alabama, Tennessee. Actually, North Carolina, the 14 hotspot was the Charlotte area, even extending, you 15 know, into South Carolina there in the Charlotte metro 16 area. A lot of times it's areas where there's a lot of 17 population growth. And so what will happen is, you 18 know, cities can't afford to put in more pumping 19 stations, so what they do is they extend the lines and 20 just increase the pressure at the main pumping station. 21 So if you're near that pumping station, they're just 22 blasting you. So a lot of it is areas where there's a 23 lot of population growth that is exceeding the ability 24 of municipalities to extend infrastructure. So those 25 are just things we kind of learned, you know, over time,</p>	<p style="text-align: right;">Page 161</p> <p>1 in the East, they were very good at what they did, and 2 didn't need as much oversight. 3 Q After NIBCO became aware -- well, let me ask 4 this. Around when did you become aware of notably high 5 water pressures generally in the Southeast? 6 A Well, you know, probably around 2010, '11, 7 '12, that -- that kind of timeframe. That's when we 8 started to notice it. We also -- but we were also aware 9 of it early. I remember in 2008, we were aware of the 10 issues at the Charlotte area. And that was tubing that 11 CPI had sold, and we were looking into that. And in 12 fact, some work had been done in 2007, and we were aware 13 of high water pressure in those areas. 14 Q So whether it's respect to Charlotte in around 15 2008 or more generally the Southeast of the United 16 States in that 2010, '11, '12 timeframe, when NIBCO 17 became aware of the high water pressure in these areas, 18 did NIBCO begin informing distributors or customers in 19 those regions, "Hey, we're aware that there's high water 20 pressure here. Make sure that the application isn't 21 exceeding the pressure limits for the product?" 22 A Well, that's when we started in our 23 installation manual, you know, putting, you know, 24 cautions about not exceeding 80 psi, you know, 25 chlorinated water. You know, I don't think we -- you</p>

Page 162	Page 164
<p>1 know, other than, you know, discussing it with customers 2 during sales calls, I didn't put anything out. I didn't 3 put out a bulletin saying that, you know, these areas, 4 because even within an area, it may be good on one side 5 of town and bad on the other, and we were just still 6 really learning what was going on. 7 Q With respect to Charlotte, you said that the 8 failures that you saw occurring there in around the 9 2007, '8 timeframe were for pipe that was manufactured 10 by CPI -- 11 A Yes. 12 Q -- and sold by CPI prior to the acquisition, 13 right? 14 A Yes. 15 Q I might have asked you this earlier. I 16 apologize if I did, but the acquisition of CPI occurred 17 in 2006. How long thereafter did CPI continue to exist 18 as an entity separate from NIBCO? 19 MR. KUHLMAN: Object to form. 20 A Well, in May 2006, we, you know, purchased the 21 assets of CPI and, you know, everyone at CPI became, you 22 know, part of the NIBCO team, and then as time went by, 23 we transitioned, and there were some functions that we 24 didn't need, some corporate functions that we didn't 25 need because of duplication, and really, today, I think</p>	<p>1 A Yeah, I'm looking at that stack over there. 2 Thank you. 3 Q And I'll just let you know that you should 4 feel free to review this document in its entirety. My 5 questions are going to focus on this e-mail on the first 6 page. 7 A Oh, okay. 8 Q And the -- 9 A That's fine. 10 Q But if you want to review the whole thing, 11 please do. 12 A No, no. Let me read this. I -- I think I 13 remember some of this. Okay. 14 Q So this is an e-mail chain discussing a 15 certain PER that was opened with respect to a homeowner 16 named James Owens; is that correct? 17 A Yes. 18 Q Okay. And in this e-mail that I mentioned, 19 first one of the document, is written by Ken McCoy to 20 Kate Emery, and you were CC'd on it on August 2, 2012; 21 do you see that e-mail? 22 A Yes. 23 Q And it seems that in this e-mail Ken is 24 discussing the disposition of the PER, and he's 25 essentially saying that the fittings that were at issue</p>
Page 163	Page 165
<p>1 the only CPI associate from a management standpoint 2 who's left is Tom Coe. But they were a pretty small 3 outfit. I mean, this is a real small -- you know, they 4 -- there were probably only eight people in the office, 5 you know, including the customer service people, so it 6 wasn't a huge operation. 7 Q So -- and, again, I know that you're not a 8 lawyer, so when I ask this question, I don't intend it 9 to be what are the corporate formalities of the separate 10 existence of legal entities, but just more in a 11 practical sense by, let's say, 2008, if someone was 12 trying to get into contact with CPI, they would be 13 contacting NIBCO at that point; is that fair? 14 MR. KUHLMAN: Object to form. 15 A Well, yeah, I mean, the -- CPI was owned by 16 the Warren Group, and then -- which was, like, a 17 syndicate of investors, and so when we acquired the 18 assets of CPI, we -- you know, we also hired those 19 people. So you know, there wouldn't be -- there wasn't 20 any place to call, -- 21 Q Okay. 22 A -- per se. 23 (EXHIBIT 8 MARKED FOR IDENTIFICATION) 24 Q Last document for me. He might have more for 25 you.</p>	<p>1 were manufactured by CPI, not NIBCO; is that fair? 2 A It appears that way, you know, from that -- 3 from this e-mail, but I don't know exactly. 4 Q And I wanted to ask you about the last line of 5 this e-mail, where he says, "You'll have to pursue the 6 matter with CPI?" 7 A Yes. 8 Q In August of 2012, how would Mr. Owens have 9 gone about pursuing the matter with CPI? 10 A Well, I don't know why Ken said that, but I -- 11 I do know that -- because, you know, what I had told you 12 earlier, that CPI basically didn't exist, I'm not sure 13 if Ken understood that. So I don't know why he would 14 say this. I can only -- I can only speculate. You 15 know, I do know that for a period of time, after the 16 acquisition of the assets of CPI, if there were some 17 warranty claims, we were sending those to CPI's 18 insurance carrier, and they were taking care of warranty 19 issues. And that could be what he was thinking of here, 20 but, you know, it doesn't -- it doesn't contradict what 21 I said earlier, that basically -- unless, you know -- 22 and Kate would have known that, too. 23 Q Would a homeowner like Mr. Owens have been 24 aware that NIBCO was still processing some warranty 25 claims through CPI?</p>

<p style="text-align: right;">Page 166</p> <p>1 MR. KUHLMAN: Object to form.</p> <p>2 A Well, I don't know. I know that there --</p> <p>3 there was an information sheet that we were sharing with</p> <p>4 people when CPI warranty issues arose, and we were doing</p> <p>5 the best that we could to get the information into</p> <p>6 people's hands. This is where you need to go, you know,</p> <p>7 if you're seeking recourse. But in this particular</p> <p>8 case, I don't know.</p> <p>9 Q I notice Ken put quotes around CPI there at</p> <p>10 the end of the e-mail. Do you think he did that because</p> <p>11 he knew he was sending Mr. Owens on a wild goose chase?</p> <p>12 A Oh, I don't know what that -- I don't know</p> <p>13 what he meant by that. You'd have to talk to Ken.</p> <p>14 Q I did ask him about that.</p> <p>15 A Oh, did you?</p> <p>16 Q Okay. Let me take a second and look at my</p> <p>17 notes.</p> <p>18 A Okay.</p> <p>19 (OFF THE RECORD)</p> <p>20 MR. SHAMBERG: Okay. I have no more questions.</p> <p>21 EXAMINATION</p> <p>22 BY MR. DEUTSCH:</p> <p>23 Q Mr. Doering, I'm Larry Deutsch. I represent</p> <p>24 the plaintiffs in the Meadow case, and we're also</p> <p>25 seeking national class on behalf of purchasers of</p>	<p style="text-align: right;">Page 168</p> <p>1 Q Okay. And these are the people that reported</p> <p>2 to you in the --</p> <p>3 A At that time.</p> <p>4 Q -- company. And do you know where Mr.</p> <p>5 Kalberer is nowadays?</p> <p>6 A Doug, he left us, and the last I heard, he was</p> <p>7 working for Sioux Chief Manufacturing.</p> <p>8 Q Okay. Do you know where they're located?</p> <p>9 A Peculiar, Missouri.</p> <p>10 Q And how about Mario Orlando, PEX Western sales</p> <p>11 manager, where is he now?</p> <p>12 A I do not know where he is at, but he lived in</p> <p>13 southern California. I'm sorry. I don't know who he's</p> <p>14 working for today.</p> <p>15 Q Okay. And in this document it shows you, your</p> <p>16 direct report is to Mr. Malm, right?</p> <p>17 A Yes.</p> <p>18 Q Okay. And was there a routine reporting of</p> <p>19 some sort that you gave to Mr. Malm as to the condition</p> <p>20 and operation of the PEX business?</p> <p>21 A All of the direct reports to Steve Malm were</p> <p>22 on a committee called the operating committee, and we</p> <p>23 met once a month, and then I would usually do a brief</p> <p>24 report once a month.</p> <p>25 Q And that would be a written report?</p>
<p style="text-align: right;">Page 167</p> <p>1 NIBCO's PEX products. So I'm going to try my best not</p> <p>2 to repeat questions that my colleague asked, but</p> <p>3 occasionally I may stray into something you've already</p> <p>4 answered, and I beg your indulgence on that. So before</p> <p>5 we get underway, I want to make sure first I understand</p> <p>6 your position in the NIBCO organization with the PEX</p> <p>7 products.</p> <p>8 A Okay.</p> <p>9 Q So I've marked this as Meadow 44, and have you</p> <p>10 take a look at it. And tell me if you recognize it and</p> <p>11 if it appears to be an organization chart that includes</p> <p>12 you as general manager of PEX?</p> <p>13 (MEADOW EXHIBIT 44 MARKED FOR IDENTIFICATION)</p> <p>14 A Yes.</p> <p>15 Q It's a document that encompasses Meadow's</p> <p>16 documents 123109 through 123113. So if you can tell me</p> <p>17 if you recognize this --</p> <p>18 A Yeah, I recognize --</p> <p>19 Q -- and it seems to be an accurate depiction of</p> <p>20 your role --</p> <p>21 A Yes.</p> <p>22 Q -- in PEX --</p> <p>23 A Yeah.</p> <p>24 Q -- as of November 2009?</p> <p>25 A Yes.</p>	<p style="text-align: right;">Page 169</p> <p>1 A That would be usually, like, a PowerPoint.</p> <p>2 Q Okay. And who was on the operating committee?</p> <p>3 A Well, it would be everyone that reported</p> <p>4 directly to Steve Malm at the time, back in 2009, so</p> <p>5 Clyde Hayes and Jim Hilfinger, Jeff Shreiner, and then</p> <p>6 if you go back here on other sheets, there's Bill Geers</p> <p>7 and Steve Kemp and Chris Mason and Dave Goodling, and</p> <p>8 Gary Wilson.</p> <p>9 Q Okay. So you would produce some kind of</p> <p>10 monthly written report to Mr. Malm; is that correct?</p> <p>11 A Usually, yeah.</p> <p>12 Q Were there any other written reports that you</p> <p>13 routinely provided to him?</p> <p>14 A No. No, that -- you know, I mean, every year</p> <p>15 -- or every month our accounting department, you know,</p> <p>16 published the financials, and that was, you know, that</p> <p>17 was a consistent report month after month, and then at</p> <p>18 the operating committee meeting, we either -- I either</p> <p>19 had prepared a PowerPoint on where we're at with things,</p> <p>20 or it was just a -- we'd do a roundtable, and I'd just</p> <p>21 give them a summary of what we were up to, what kind of</p> <p>22 month we had.</p> <p>23 Q Okay. Did you do any direct reporting to Mr.</p> <p>24 Martin as the CEO of NIBCO?</p> <p>25 A No.</p>

Page 170	Page 172
<p>1 Q Okay. Did you, on occasion, do some reporting 2 directly to Mr. Martin? 3 A Not directly. There were a couple of meetings 4 a year where we did a kind of a half year, end of year 5 summary, and Rex would sometimes sit in on that. But I 6 was delivering that to the entire operating committee, 7 and Rex would sometimes make an appearance and sit in. 8 Q Okay. And that was also something you did in 9 writing that you ultimately shared with the operating 10 committee; -- 11 A Yeah. 12 Q -- is that right? 13 A Yeah. 14 Q Okay. Now, the way this is designed on Meadow 15 44 it looks like PEX is a separate operating entity; is 16 that correct? 17 A Yes. 18 Q Okay. And that stayed that way to the 19 present? 20 A Yes. 21 Q That you know of? Okay. 22 A Yeah. We felt that, you know, the PEX 23 business was -- was different than some of our other 24 businesses. One part of it is it's a system that you're 25 selling. You know, our other businesses are just</p>	<p>1 present general manager today, but she is performing a 2 similar role. She -- 3 Q What was her role under your -- 4 A Oh, she just, you know, helped with clerical 5 stuff. Wasn't at the plant. She was up at Elkhart. She 6 was just assigned to help me with -- 7 Q Did she kind of keep your records? 8 A Yeah, yeah. Just when I needed help. It's 9 kind of different today, because we all have laptops, 10 and we don't have people doing our letters anymore. 11 Q And at the bottom of this organization chart 12 under you, you have operations manager Lebanon, Marc 13 Lara -- 14 A Laracuenta. 15 Q Laracuenta? 16 A Yes. 17 Q And what was his role under you? 18 A Well, Mark was responsible for, I believe 19 there's -- at the PEX plant there's three operations. 20 There's the production or extrusion of the tubing, and 21 then there's secondary processing where you coil it, cut 22 it to length, and then the third operation is storing it 23 and shipping it. And Mark would have been responsible 24 for the secondary processing and the shipping of the 25 product. And then the other gentleman, Pat Borgerding,</p>
Page 171	Page 173
<p>1 selling valves or fittings, whereas this, you're selling 2 a system, they felt like. And then since it was a 3 relatively a new business to NIBCO, they felt like it 4 needed its own focus, and having a general manager was 5 part of that. 6 Q I'd like you to take a look at what's been 7 marked as Meadow 45, which encompasses Meadow's Bates 8 numbers 123118 through 122. And this is an organization 9 chart. It shows on the bottom right-hand corner it's 10 October 2012. And if you could take a look at this, 11 tell me if you recognize it. Tell me if it appears to 12 be an accurate depiction of NIBCO and the period October 13 2012 and particularly your organization on the third 14 page? 15 (MEADOW EXHIBIT 45 MARKED FOR IDENTIFICATION) 16 A Yes, it is accurate. 17 Q And these are the correct direct reports here 18 at this period of time October 2012? 19 A Yes. 20 Q And is Michelle Mast still with NIBCO, to your 21 knowledge? 22 A Yes. 23 Q Do you know where her current assignment is? 24 A I think that she's still an administrative 25 assistant. I don't know if she's an assistant to the</p>	<p>1 he was in charge of the extrusion of the tubing. 2 Q Do you know if they're still with NIBCO? 3 A No, they are no longer with NIBCO. 4 Q Do you know where they went? 5 A I do not know. I know that Mark is in 6 Columbus, Ohio. He got into something totally 7 different. I think it's a company that makes paint. I 8 don't know the name of it. I don't know where Pat 9 Borgerding went. 10 Q Okay. In Meadow 44, we saw there's a Doug 11 Kalberer -- 12 A Yes. 13 Q -- in that -- in your organization chart. Do 14 you know why he left NIBCO? 15 A I don't know. I think he had a -- I think 16 that he was -- you know, our sales -- our PEX sales 17 managers had big territories. Doug's territory was from 18 Texas all the way to Minnesota, and I think he was tired 19 of the travel, and so he went to Sioux Chief 20 Manufacturing, took a -- it's like a marketing or 21 product development role there. 22 Q Okay. Now, aside from your reports at the 23 operating committee to Mr. Malm, could you describe Mr. 24 Malm's involvement in the PEX business? 25 A Well, you know, Steve, he was not involved in</p>

<p style="text-align: right;">Page 174</p> <p>1 any day-to-day, you know, details of the business. You 2 know, I would report to him at the operating committee. 3 I also, in my previous testimony, talked about the 4 business management teams that we had, and he would 5 sometimes sit in on those meetings, which usually lasted 6 no more than two hours once a month. And so you know, 7 he was familiar with the direction of the business and 8 what we were working on, but he didn't get involved in a 9 day-to-day basis with anything. 10 Q Did you normally inform him if there were 11 issues of concern about how the PEX business was 12 performing? 13 A Well -- well, I think at the business 14 management team meeting, you know, we talked about 15 things in general, and so, you know, he knew -- you 16 know, he knew about, you know, things that we were 17 working on and, you know, things that we were thinking 18 about getting into and challenges that we were facing. 19 Q When you say "challenges," what would you fit 20 into that category for the PEX business? 21 A Well, I mean, we talked mostly about, you 22 know, actions by our competitors and what we were going 23 to do and jobs that we were -- customers we were trying 24 to convert and customers that we may have lost for one 25 reason or another, and we -- those were the kind of</p>	<p style="text-align: right;">Page 176</p> <p>1 ultimately reported to Mr. Martin directly regarding the 2 PEX business? 3 A No. 4 Q Now, part of the PEX business is not only the 5 tubing but the fittings and the clamps; is that right? 6 A Correct. 7 Q That's part of a whole system, right? 8 A Yes. 9 Q And NIBCO didn't make the fittings and clamps 10 for the PEX system, right? 11 A That's correct. 12 Q Okay. It required them going to a vendor, 13 right? 14 A Yes. 15 Q And who were the vendors that NIBCO used for 16 its fittings and clamps? 17 A Well, we had several vendors for fittings. 18 Linx was one of the vendors. There was another company 19 I believe called Asian Union that we used. With the -- 20 with the connection devices, I can't remember the name 21 of our copper crimping source, but it was -- it was a 22 domestic source. There was a stainless steel client 23 that we actually stopped selling. We were buying that 24 from a company called -- from -- called Murray. We were 25 selling those at the time, but I -- we got out of that</p>
<p style="text-align: right;">Page 175</p> <p>1 things that we talked about mostly. 2 Q Did he get involved in any way in the 3 reformulation project that you identified earlier in 4 your testimony? 5 A Not really, no. Other than -- other than we 6 -- you know, we, you know, told him what -- talked to 7 him about what we wanted to do and, you know, got his 8 blessing on -- on things. And then, of course, I think 9 that with that investment level that David Bobo had in 10 his proposal, I don't know if they spent all that money, 11 but that was going to go to his level for a signoff, 12 so... 13 Q And did that happen? Did that go to -- 14 A Yes. 15 Q -- Mr. Malm's level? 16 A I'm sure that it did, yes. 17 Q And he approved that? 18 A Yeah. 19 Q Is that right? 20 A Yeah, yeah, yeah. 21 Q Do you know if that went to Mr. Martin's 22 level? 23 A I don't know. 24 Q Do you recall any specific reports, and I 25 don't mean a routine report, but just any topic that you</p>	<p style="text-align: right;">Page 177</p> <p>1 near the end of my tenure. And then like I said before, 2 some of the ancillary products, we bought from Sioux 3 Chief Manufacturing. But those were the main sources. 4 Q Okay. And when you say "connection devices," 5 could you define what you mean? 6 A Well, a PEX connection's a mechanical joint. 7 And so you have a fitting that has barbs on it. It's 8 inserted into the tubing, then the connection device on 9 the outside of the tube, and then you use a tool to 10 crimp that mechanical device around the tubing. That 11 holds everything together so it doesn't come apart. And 12 most of what we sold, I'd say 80 percent, were copper 13 crimp rings. Those were the -- you know, a very good 14 connection system and most popular with our customers. 15 Q Okay. And your testimony a little while ago, 16 you said that you, if I understood you right, that you 17 got out of the stainless steel clamps that Murray 18 produced; -- 19 A Yes. 20 Q -- is that right? Okay. And why was that? 21 Why did you stop using them? 22 A Well, we -- I think the main reason was we 23 didn't think that it was, you know, our -- we were 24 selling mostly to plumbers, who were professionals, and 25 we felt like the clamp was more of a</p>

<p style="text-align: right;">Page 178</p> <p>1 do-it-yourselfer-type device, and they were -- one thing 2 that was happening is that some people were importing 3 cheap tools from China, and these tools were being used 4 on the clamps, and it introduced a lot of problems that 5 we couldn't control, because these tools are 6 interchangeable. And so we -- we just felt like -- and 7 we weren't selling a lot of them. And so we felt we'd 8 just focus on -- on copper. And then we -- we had a 9 third clamping device called the stainless steel sleeve 10 we could sell along with those, but we thought that it - 11 - they had more benefits, and so we -- we wanted to 12 focus on -- on those two connection devices. 13 Q So were a number of problems reported with the 14 stainless steel clamps? 15 A There were a few. It wasn't -- it wasn't 16 anything major. But I think we just had some -- there's 17 just some things about it that we just didn't like, and 18 we weren't selling that many of them, so we decided, you 19 know, to change the direction we were in. 20 Q Did you ever determine if there was something 21 wrong with the stainless steel clamp that was produced? 22 A No, no. You know, there may have been a, like 23 a dud every once in a while, but, no, there wasn't -- 24 there wasn't anything wrong with them. Just that 25 another problem with them is that with the copper crimp</p>	<p style="text-align: right;">Page 180</p> <p>1 special fittings that had expansions for the water 2 heater. Just all kinds of things like that. Things are 3 kind of close to being a fitting, but really isn't. 4 Q Okay. So you mentioned a few vendors you 5 dealt with. Was another vendor Marshall Brass? 6 A Yes. CPI was purchasing fittings from 7 Marshall Brass. And then we also did, oh, probably for 8 a couple of years after the acquisition. And I think it 9 was around -- yeah, it was around 2008 that we switched 10 to offshore sources for the fittings. 11 Q And what were those offshore sources? 12 A The ones that I had mentioned, Linx and the 13 Asian Union. 14 Q And did you ever have problems with those 15 sources? 16 A We only had one -- one problem that involved 17 Linx, and that involved just a handful of fittings. And 18 at their factory, the wrong alloy was put into the 19 fitting, and we had noticed some unusual stress cracking 20 in some of the fittings. And so we -- we did a quick 21 investigation, and then we did a -- kind of a product 22 exchange with our customers trying to get as many 23 fittings back as we could. And then -- and then for the 24 next several years, unfortunately, there were some 25 issues that we became aware of, and then we worked</p>
<p style="text-align: right;">Page 179</p> <p>1 line, it fits on the tubing, and you can position it 2 almost perfectly on the -- on the tubing. The clamp is 3 -- was bigger than the tubing, so you know, you're 4 trying to hit a spot. You're supposed to install these 5 devices one-eighth of an inch from the end of the tube, 6 and a lot of installers, because there was so much 7 slack, they had trouble hitting it, you know. We just 8 -- we just thought there's too many variables here, you 9 know. It's hard for installers to use. Not many 10 professionals use them. We're selling to professionals. 11 Why are we in this? So we got out of it. 12 Q Okay. And earlier in your -- the answer you 13 just gave me, you referred to what you called "ancillary 14 products." 15 A Sure. 16 Q Could you explain what that is? 17 A Oh, there's just all kinds of things. PEX 18 tubing, typically, you don't want it touching any metal. 19 And a lot of people use steel studs in buildings today, 20 so we had grommets that you would put in the holes in 21 these studs so that the tubing would slide on plastic. 22 We had supports so that you'd have a perfect bend radius 23 for the tubing when going around corners. There are -- 24 PEX tubing cannot be connected -- you have to be 18 25 inches away from the water heater, so we would sell</p>	<p style="text-align: right;">Page 181</p> <p>1 through the issues with our customer. But it was 2 something that we knew about, you know, immediately and 3 we took, you know, what we thought -- what we think are 4 responsible steps to, you know, resolve it. 5 Q I think you referred to, maybe I'm 6 mischaracterizing it, as a handful of these fittings 7 from Linx. Do you have, like, a numeric count? 8 A I don't know the exact number. I think it 9 was, like, five configurations and with maybe, I think, 10 80 -- around 80 percent of the failures were just one -- 11 one particular fitting configuration. It was a T, as I 12 recall. I don't remember exactly which configuration it 13 was. But it was -- I think it might have been a one 14 inch by -- one inch by one inch by -- or a half inch by 15 half inch by one inch T. I think that may have been the 16 one that was affected the most. 17 Q And -- 18 A As I recall. 19 Q Do you have an understanding of -- like how 20 many of the Ts were sold to the public? 21 A Oh, it was -- I'm trying to remember. It -- 22 it wasn't -- you know, it was in the thousands. It 23 wasn't in the hundreds of thousands. 24 Q When you discovered this problem with the Ts 25 from Linx that were sold to customers, was there an</p>

<p style="text-align: right;">Page 182</p> <p>1 accounting adjustment done by NIBCO to reflect its 2 anticipated costs of fixing that problem? 3 A Well, you know, the fittings, you know, we 4 didn't manufacture them. They were made by Linx, and so 5 we were working with Linx and their insurance carrier, 6 you know, to pay the claims, because they were paying 7 the claims. If there was any damages we were, you know, 8 obviously, replacing, you know, the product, you know, 9 if they needed new product. But I -- I don't know what, 10 you know, accounting adjustments there were. 11 Q But you're saying Linx was stepping up to 12 cover whatever costs were involved; -- 13 A That's correct. 14 Q -- is that correct? And that included -- 15 A They had their carrier. 16 Q I'm sorry. The plumbing costs, damage to 17 people's property? 18 A That's correct. 19 Q And were -- so people that came back to you 20 with Linx fittings and it failed, those claims were 21 approved in full; is that fair to say? 22 A That's correct, yes. 23 Q Okay. And do you remember who their insurance 24 carrier was that you said covered the claims? 25 A I think it was Chubb.</p>	<p style="text-align: right;">Page 184</p> <p>1 regularly audit our suppliers and ensure they were 2 meeting our standards. 3 Q Given that program, how did the Linx defective 4 fittings get through the systems that you've installed? 5 A I don't know if we'll ever know. But I, you 6 know, we did seek a corrective action plan from them. I 7 don't know if I personally saw it. I think our 8 purchasing people took care of that. And I know that 9 they were -- they were in their plant, you know, making 10 sure that -- giving us assurances that this wouldn't 11 happen again. But I think it was just a mistake by an 12 individual, you know, on -- on one of the shifts. And 13 it wasn't -- it wasn't a lot of fittings, but, you know, 14 it was -- there were enough out there to create some 15 problems for some folks. 16 Q Do you have any idea of how many sites wound 17 up using the defective fittings? 18 A You know, I -- it's been so long since I've, 19 you know, seen -- seen the numbers. You know, it was, 20 you know, probably more than 20, but not, you know, not 21 in the hundreds or anything like that, you know. 22 Q Now, as part of the PR program run by NIBCO 23 relating to PEX -- 24 A Yes. 25 Q -- under your direction, was there a protocol</p>
<p style="text-align: right;">Page 183</p> <p>1 Q That raises a question. On any claims 2 submitted to NIBCO, not Linx, does NIBCO look at an 3 insured to cover the costs of claims that come in from 4 the public? 5 A Not -- 6 Q The PEX business? 7 A If it's products that we make? 8 Q Yes. 9 A Not -- not typically. I think -- no, I don't 10 -- I don't think we've made -- well, I'm not sure. I 11 don't think we've made claims to our insurance company. 12 I think we've -- we've just take -- taken care of it. 13 Q Now, these fittings that you got from your 14 vendors, was there a protocol in how NIBCO tested the 15 fittings and clamps before it sold them to -- 16 A Yes. 17 Q -- the public? 18 A Yeah, yeah. We did -- you know, I don't know 19 all the tests, but we did extensive testing to make sure 20 that it met the standards. We also had -- I'm trying to 21 think of the term for this document. But we -- we had a 22 document for vendors that basically explained what our 23 specifications were for that product. Since some of 24 these sources were Asian sources, we had a member of our 25 purchasing department who lived in China and would</p>	<p style="text-align: right;">Page 185</p> <p>1 when people complained or sent in fittings to NIBCO as 2 to how you evaluate what the cause of the failure was 3 and whether or not NIBCO would cover the costs to -- 4 A Yeah, it was the same process as the PEX 5 tubing. And the fittings were sent to our lab in 6 Elkhart, and then they would evaluate the fittings and 7 try to make a determination if it was a manufacturing 8 defect or not. 9 Q Was there a written protocol of what the 10 people evaluating the fittings that came into your 11 system used? 12 A I don't know for sure, but I'm fairly 13 confident that they had, you know, a road map on what 14 are the steps to take to evaluate those things. 15 Q Were there certain tests they applied to 16 evaluating the fittings that were returned? 17 A You know, I just wasn't that familiar with it, 18 Larry. I -- I know that they were very good at what 19 they did. We had a metallurgist on our staff, who often 20 weighed in on failures, and he was very good and, you 21 know, they used microscopes to look very deeply at these 22 things, but they -- they were -- they were the experts. 23 Q Who was the metallurgist you were just 24 referring to? 25 A Ben Lawrence was the metallurgist, yeah.</p>

<p style="text-align: right;">Page 186</p> <p>1 Q Now, at some point did NIBCO deal with the</p> <p>2 issue of dezincification of some of its fittings?</p> <p>3 MR. KUHLMAN: Object to form.</p> <p>4 A Well, can you restate that? I'm not sure I</p> <p>5 understand --</p> <p>6 MR. DEUTSCH: Can you read that back?</p> <p>7 A -- what the question is.</p> <p>8 COURT REPORTER: I can do a playback.</p> <p>9 MR. DEUTSCH: Oh, a playback. Wow. This is</p> <p>10 very high-tech.</p> <p>11 COURT REPORTER: Hold on. Let me go back and</p> <p>12 fix the volume.</p> <p>13 MR. DEUTSCH: Oh, that's what that little</p> <p>14 device we have here?</p> <p>15 COURT REPORTER: This line, yes, but it plays</p> <p>16 out of my computer. I just have to switch the sound</p> <p>17 system to which one I use.</p> <p>18 MR. DEUTSCH: It's going to take a while. I</p> <p>19 can repeat what I'm asking. That's okay.</p> <p>20 COURT REPORTER: Okay.</p> <p>21 BY MR. DEUTSCH:</p> <p>22 Q Was there a time when NIBCO became aware of</p> <p>23 and began to deal with issues of dezincification of its</p> <p>24 brass fittings?</p> <p>25 A Okay. Okay. Yeah, when we first got into the</p>	<p style="text-align: right;">Page 188</p> <p>1 resistant and low-lead brass, which means it's less than</p> <p>2 .25 percent lead content.</p> <p>3 Q Okay. But prior to that, NIBCO had sold</p> <p>4 yellow brass as part of its PEX system, correct?</p> <p>5 MR. KUHLMAN: Object to form.</p> <p>6 A Yeah. We had sold them, and they met all</p> <p>7 applicable standards, and we really, I don't know for</p> <p>8 sure, but I don't think we had any failures with any</p> <p>9 fittings in the field.</p> <p>10 Q And do you know that as of today, that no</p> <p>11 failures have come to light?</p> <p>12 A Well, there have been very few. There have</p> <p>13 been very few that -- that I was aware of when I worked</p> <p>14 at NIBCO, fitting failures.</p> <p>15 Q But just so I'm clear, NIBCO did sell yellow</p> <p>16 brass to customers up until 2011?</p> <p>17 A Yeah.</p> <p>18 Q Yes?</p> <p>19 A Uh-huh.</p> <p>20 Q All right. I'm going to change topics for a</p> <p>21 moment. Just -- I think in your testimony earlier today</p> <p>22 you talked about aggressive water, and does that include</p> <p>23 like the level of chlorine that you find in there?</p> <p>24 A Yeah. I -- I don't know the exact definition</p> <p>25 of that, but I think we're probably talking about both</p>
<p style="text-align: right;">Page 187</p> <p>1 PEX business, our engineers were aware of some</p> <p>2 dezincification issues that some of our competitors are</p> <p>3 -- had had, in the early 2000s is when most of the</p> <p>4 problems occurred. And we had been an advocate in our</p> <p>5 industry for delignification-resistant brass for quite a</p> <p>6 long time. I kind of learned this after the fact, after</p> <p>7 we had gotten into the PEX business where brass was</p> <p>8 commonly used. And so we -- our people led the push for</p> <p>9 the industry to commit and adopt dezincification or</p> <p>10 resistant fittings. They're also called DCR fittings.</p> <p>11 You may have seen that on some documents. And so I'm</p> <p>12 trying to remember the dates of all these things, but in</p> <p>13 -- in the 2011, 2012 timeframe, we started converting</p> <p>14 from yellow brass to DCR brass. At the same time, our</p> <p>15 -- there were low-lead brass requirements passed in</p> <p>16 California, and, you know, California is such a good</p> <p>17 part of the country, if you're going to change for</p> <p>18 California, you might as well change for everyone else,</p> <p>19 because it's -- you know, why have two inventories. And</p> <p>20 so there was federal legislation passed requiring low-</p> <p>21 lead brass, and so there was those -- those things kind</p> <p>22 of -- they weren't simultaneous, but the low-lead brass</p> <p>23 followed right after the DCR. And then I suppose it was</p> <p>24 in that 2011, 2012, 2013 timeframe, we started making</p> <p>25 the switch to fittings that had both dezincification-</p>	<p style="text-align: right;">Page 189</p> <p>1 pH and chlorine.</p> <p>2 Q Is there some level of chlorine that NIBCO</p> <p>3 would define as aggressive?</p> <p>4 MR. KUHLMAN: Object to form.</p> <p>5 A I don't know. I don't know enough about that.</p> <p>6 Q It appears to me that your experience would be</p> <p>7 that you would -- it would be unlikely to find more than</p> <p>8 one part per million of chlorine in portable water in</p> <p>9 somebody's house; is that fair to say?</p> <p>10 A Well, I -- I don't know. I'd have to go back</p> <p>11 and look at Tom's reports. But as I recall, the</p> <p>12 chlorine probably ranged from 1 part per minute -- one</p> <p>13 part per million to maybe three or four at the high</p> <p>14 level.</p> <p>15 Q If there were some instances you found</p> <p>16 chlorine as high as three parts per million?</p> <p>17 A Well, you know, I'm just kind of going off</p> <p>18 memory, and I'm not sure. But I don't -- I think that</p> <p>19 in most cases, I don't think chlorine -- high chlorine</p> <p>20 levels were an issue in a lot of those cases we</p> <p>21 investigated.</p> <p>22 Q Okay. Another change in topic. So when NIBCO</p> <p>23 acquired what you call the assets of CPI, what was Mr.</p> <p>24 Nathan's role in the acquisition period?</p> <p>25 A Well, Chris headed up the team, and then after</p>

Page 190	Page 192
<p>1 we acquired the assets of CPI, Chris was responsible for 2 the integration of the business into NIBCO. And, you 3 know, we have operating systems and, you know, just 4 different company culture. All kinds of things that 5 when we acquire, you know, new people and, you know, to 6 get them integrated into, you know, our way of doing 7 things. 8 Q And he had that role from when to when? 9 A Well, he had that role from 2006 -- the 10 integration probably was completed around, you know, 11 2008, 2009 as we officially said, you know, we're 12 integrated. But then the plant continued to report to 13 him even though I was the general manager until 2012. 14 And then in 2012, I actually moved from our headquarters 15 in Elkhart, Indiana to Lebanon, and that's when I 16 assumed responsibility. I was still general manager, 17 but I had responsibility for the manufacturing operation 18 as well. 19 Q Let me touch on your work history then with 20 the PEX and what was the explanation you were given when 21 you took over the PEX business in 2008 as to why you 22 were getting that job? 23 A Oh, why I was -- well, I had done -- you know, 24 I had been product manager when we started sourcing PEX, 25 and I led that project, and then prior to that I was the</p>	<p>1 A Well, when -- if -- when there was a line 2 review, yes, we participated and competed. 3 Q And when was that? 4 A Oh, I don't know when it was, but, you know, 5 you usually get an opportunity every four years or so. I 6 don't know when the last one was. And you go in, and 7 you make a big presentation, and then you find out 8 whether you've unseated the incumbent. And that's the 9 other thing in retail, the incumbents have a very strong 10 position and, you know, it's difficult to unseat them at 11 times. 12 Q Did you ever get any feedback from Home Depot 13 and Lowe's as to why they didn't select NIBCO's PEX 14 products? 15 A No. I think a lot of times it comes down to 16 price. 17 Q Now, a little while ago when we were talking 18 about the problem with Linx fittings, when you 19 discovered the problem, how did you communicate to 20 end-users that the problem was defective? What steps 21 did you take? 22 A Well, we immediately -- we sent a letter to 23 all of our wholesalers, wholesale distributors, and they 24 then were responsible for -- you know, they had lot 25 numbers and serial numbers and date codes and everything</p>
Page 191	Page 193
<p>1 national sales manager for retail, and Menards was one 2 of my accounts, and I was successful in doubling our 3 business with them. And so I think that those were 4 probably the two main things that made me a good 5 candidate for the job. 6 Q So when you say you were national sales 7 manager for retail, would that include trying to sell to 8 Home Depot and Lowe's? 9 A Yes. 10 Q Okay. Was NIBCO not successful in selling to 11 those outlets? 12 A Well, we -- we've been selling to Menards for 13 a long time, and NIBCO sells many of their products to 14 Home Depot and Lowe's, but at Home Depot and Lowe's, you 15 know, we -- you know, the way this works is you get a 16 shot at business, like, once every four years or so when 17 they have a line review, and you get one shot, and if 18 you miss it, you're waiting another four years. So you 19 know, we get a shot every time, but for whatever reason, 20 I don't know all the details of it, we -- we have not 21 sold into Home Depot and Lowe's. But we sell to Menards 22 and we sell into Ace. We have the Ace business in the 23 US and a lot of other smaller independent retailers. 24 Q Was there an expressed effort to sell the PEX 25 line of products to Home Depot and or Lowe's by NIBCO?</p>	<p>1 they needed to track down everything in their warehouse, 2 and then we wanted them to get ahold of their customers 3 and get back, you know, as many as they could. And I 4 think that we got a fair amount of them back. I think 5 it was a fairly successful effort, but you never get 6 them all back, and -- but those are the steps that we 7 take, you know, when there's an issue like that, we've 8 become aware of sometimes. 9 Q So you contacted the wholesalers, and I take 10 it, they, in turn, would contact the plumbers and 11 contractors? 12 A Yeah. The contractors, yes. 13 Q So if -- let's say someone determined there 14 was a problem with their PEX tubing, a mechanism to 15 inform people that have that PEX tubing would be done by 16 NIBCO contacting the wholesalers, who, in turn, could 17 get the word out to builders and plumbers, right? 18 MR. KUHLMAN: Object to form. 19 A Well, would we -- are you asking me if we 20 would follow a similar process if I knew of a defect? 21 Q Yes. 22 A It would probably be a similar process. 23 Q And that would be reasonably effective in 24 getting out the message to who has the defective 25 product, right?</p>

Page 194

1 MR. KUHLMAN: Object to form.
2 Q It's just for the record, putting on the
3 record an objection.
4 A We would follow something similar.
5 Q Now, I think in your testimony earlier today
6 we've established that it was a 1006 product which then
7 was arguably upgraded to a 3308?
8 A Yes.
9 Q And the 3308 would be more appropriate for
10 recirculation systems, right?
11 A Yes.
12 Q So was there ever any consideration of sending
13 out some notice to users or builders that use the 1006
14 in a recirculation system that perhaps that pipe would
15 not be as reliable as a 3308?
16 MR. KUHLMAN: Object to form.
17 A No, no.
18 Q Now, when did you first become aware of the
19 case, the Meadow case? You know what, I'm going to add
20 in the Cole case. These are both national class actions
21 regarding PEX products of NIBCO.
22 A I became aware of the Cole case before I left
23 as general manager, and I -- the Meadow case, just in
24 the last week.
25 Q Okay. So when you became aware of the Cole

Page 195

1 litigation, were there certain steps you took in
2 reaction to the litigation?
3 A No, no.
4 Q Okay. Did you, you know, preserve any files
5 that you had?
6 A Well, we get notices, you know. If -- if
7 there is a pending lawsuit there's a notice that comes
8 from our legal department that states, you know,
9 "Please, you know, preserve anything related to this
10 case." I'm sure I received one of those notices. So
11 yes.
12 Q Okay. Do you know if you got such a notice in
13 the Christianson case?
14 A Yes.
15 Q Okay. The Pulte case?
16 A Yes.
17 Q Okay. Now, did you take any documents with
18 you when you left NIBCO?
19 A No.
20 Q Okay. And why did you leave NIBCO?
21 A Well, I -- I was -- I moved here to
22 Louisville, and I was contacted by a headhunter about an
23 opportunity with a company here in Louisville to be
24 their vice president of sales and marketing, and it
25 sounded like a pretty good opportunity, and I threw my

Page 196

1 hat in the ring, and they interviewed me, and the next
2 thing I know they offered me a job, and I laughed. So
3 that's how it happened. I mean, it wasn't -- there was
4 nothing planned, and I wasn't necessarily looking, but
5 it just happened.
6 Q Okay. And is that where you work now?
7 A Yes.
8 Q Okay. What's the name of the company?
9 A It's called Kentucky Trailer.
10 Q Okay. And what's their business?
11 A We make trailers, trailer vans for the moving
12 and storage industry, and then also specialty fleet
13 applications. So our customers are FedEx and UPS and
14 Frito-Lay, companies like that.
15 Q Now, when you were at NIBCO, did you have a
16 business e-mail address?
17 A Yes.
18 Q And what was that; do you remember what your
19 e-mail was?
20 A Yes. It was doeringr2@NIBCO.com.
21 Q Okay. Did you ever use your private e-mail to
22 do business of NIBCO?
23 A Oh, never.
24 Q Do you know what the annual revenue of NIBCO's
25 PEX business was, you know, from the time it started

Page 197

1 selling NEXT-Pure until you left?
2 A Yeah, the NEXT-Pure, you know, we sold it for
3 a couple of years. I think we -- probably after two
4 years, we were probably around four million or so, and
5 then I believe that the CPI acquisition added around 16
6 million, and so I think the business has been anywhere
7 from 20 to 25 million.
8 Q Okay. If you could take a look at what we've
9 marked as Meadow 46. It's an e-mail that you received
10 from Mark Clark as a CC to you, and it encompasses Bates
11 numbers 31944 to 31945. The e-mail's dated November 23,
12 2008. If you could take a look at this and tell me if
13 you recognize this and if you recall receiving it?
14 (MEADOW EXHIBIT 46 MARKED FOR IDENTIFICATION)
15 A Okay.
16 Q Okay. Do you recognize this e-mail you
17 received?
18 A Yeah, I don't recognize the e-mail, per se,
19 but I do remember this issue.
20 Q Okay. And what was this issue that's
21 reflected in Meadow 46?
22 A Well, in most states if -- like, the standard
23 for fittings are -- it's called F 1807. And so most
24 states, if -- if the tubing, which is F 876 -- or, no.
25 Let me take this back. If I've got fittings that have F

Page 198	Page 200
<p>1 876 stamped on them, and I have a tube that has F 876 on 2 them, then I can marry them. So I could have a tube 3 from Zurn and a fitting from Viega or NIBCO, and I can 4 marry them, in every state in the United States except 5 for one. And that's Minnesota. And UPINOR is 6 headquartered in Minnesota. So they've been very 7 influential, and they -- in the state of Minnesota, you 8 not only have to be F 876, F 876, but you have to -- it 9 has to be all the same manufacturer. And you have to 10 have a system approval. So Mark, a lot of the bulk of 11 the e-mail, you know, this is when I talk about the 12 standards people in a different world. There's all 13 kinds of issues with this. But what he's trying to 14 achieve here is a system standard for NIBCO that would 15 allow us to sell into Minnesota. 16 Q Okay. 17 A That's what -- that's what was happening here. 18 Q Okay. And in the third paragraph from the 19 bottom, he also refers to -- I guess the issue is 20 dezincification, right? 21 A Yes. 22 Q Okay. And so that was an issue pending during 23 this period of time in 2008, right? 24 MR. KUHLMAN: Object to form. 25 A Well, I mean, what he's -- you know, what he's</p>	<p>1 received and what it concerns. 2 A Okay. 3 Q Okay. You recognize this document? 4 A Yeah, I kind of, I think I remember some of 5 these discussions. 6 Q Okay. And what does this concern? 7 A Well, there was a homeowner that had a fitting 8 that failed, and then we were investigating what had 9 happened. And the fitting failed because of corrosion, 10 and then we started digging deeper into the application 11 and found that they were using a deionization system in 12 the home, and these sometimes can lead to some 13 aggressive water conditions, and that's why they stated 14 in the report that the water heater had -- had been 15 fully corroded and destroyed after one year. And so the 16 determination of our technical people were that in this 17 particular home, with these water conditions, they need 18 to use a plastic fitting that is, you know, completely 19 resistant to any kind of corrosive action. 20 Q By the way, who's Greg Lehman, the person 21 who's sending this e-mail? 22 A He's in our technical services department. He 23 works for Ken McCoy. 24 Q Okay. And does he have particular technical 25 training?</p>
Page 199	Page 201
<p>1 saying here, we sold not only brass fittings, but we 2 also sold a poly alloy or a plastic fitting at the same 3 time, which are dezincification, they're a 100 percent 4 dezincification and have no lead. And so what he's 5 saying here is if we're going to have a system approval 6 in Minnesota, because there are known issues with brass 7 in Minnesota, why don't -- he's suggesting that we have 8 a system approval for a plastic fitting, not a brass 9 fitting. So that's what he's suggesting there. 10 Q Okay. Was that done by NIBCO, get focused on 11 the plastic fittings? 12 A Yeah, yeah. We've -- well, actually what we -- 13 - we were sourcing those for a number of years, and 14 right before I left as general manager, we started 15 producing our own poly alloy fittings. And I think that 16 our -- my feeling, I don't know if it's going to hold 17 true, is that poly alloy fittings were going to end up 18 being, you know, a very popular item. 19 Q Okay. Take a look at what we've marked as 20 Meadow 47. It should be an e-mail chain you've got from 21 Greg Lehman dated December 10, 2010. In encompasses 22 Meadows 117408 through 411. Take a look at this. 23 (MEADOW EXHIBIT 47 MARKED FOR IDENTIFICATION) 24 A Sure. 25 Q Tell me if you recognize this e-mail you</p>	<p>1 A He does, but I -- I don't know exactly what it 2 is. 3 Q Okay. This has been previously marked. You 4 don't have to mark that. This has been previously 5 marked as Meadow 19. If you could take a look this, -- 6 A Sure. 7 Q -- which is previously been marked as Meadow 8 19. An e-mail to you from Grant Dow, October 7, 2011. 9 It's concerning the city of LA's approval. If you 10 could, tell me if you recognize this document and what 11 it concerns. 12 A Okay. 13 Q Okay. Do you remember getting this e-mail? 14 A I remember this issue. I don't remember this 15 e-mail exchange. 16 Q Which is this e-mail exchange? 17 A Yeah. In California, Los Angeles County has 18 their own plumbing code, and it's almost like a 19 different country, apart from California, which is even 20 more regulatory than California. And what they wanted, 21 what they were demanding is -- PEX tubing, copper tubing 22 has the same OD size or outside diameter, but the wall 23 thickness of PEX is like this, and copper's like this. 24 And so in Los Angeles County, they wanted everyone to go 25 to the next size up. So if you're running half-inch</p>

Page 202	Page 204
<p>1 tubing, and that's the most popular size in a home, 2 they're saying, "We want an opening that's as big as 3 copper," so you've got to go up to three-quarter inch. 4 And so this e-mail basically is we're just discussing, 5 you know, is it worth it in -- in Los Angeles county to 6 go through all this testing and approval to get 7 something that, one, is meant to perpetuate copper, 8 because it will make PEX more expensive because you're 9 going to a larger size, and then -- then in Los Angeles 10 county, and most of its built up, so most of the growth 11 in Los Angeles county is remodels and things like that. 12 And so what they're saying is we'd be better off 13 sticking with just getting our product approved in the 14 state of California, because this was in 2011, we were 15 still waiting for the housing market to recover. So the 16 thoughts were let's wait, get the California state 17 approval because the growth is going to be the suburbs. 18 So we were just debating whether we should get an 19 approval in -- in Los Angeles county. 20 Q Okay. In this first page, it refers in the 21 middle of the page, "If we do renew, should the yellow 22 brass items come off the list." Is that a concern of 23 dezincification of yellow brass that NIBCO was selling? 24 A Well, yeah, I mean, we knew -- we knew the 25 yellow brass was, you know, going to -- we were going to</p>	<p>1 But I don't -- I don't know how the story ended. But it 2 looks like there could have been a manufacturing defect 3 in this case. 4 Q Okay. 5 A But then they also talked about an insulation 6 issue earlier in the e-mail chain, so I don't know how 7 it all ended. 8 Q I just have one question on the second e-mail, 9 the second from the top? 10 (MEADOWS EXHIBIT 49 MARKED FOR IDENTIFICATION) 11 A Sure. 12 Q It's from Debbie Premus to you and some other 13 NIBCO people. And she describes a test that she 14 performed at 180 degrees with -- at 360 psi, that the 15 product failed at that level, and she says that's about 16 average for a product at this temperature. Am I correct 17 in understanding that the NIBCO pipe can sustain 18 standards well beyond what's printed on the pipe? In 19 other words, normally it's printed as -- 20 A Yeah. 21 Q -- 180 degrees, 100 psi, but the pipe should 22 be able to sustain more than that, right? 23 A Yeah. Like, at room temperature, you know, 24 you can -- it wouldn't burst until you hit 850 or 900 25 psi. But these are -- there's like, when we were</p>
Page 203	Page 205
<p>1 be getting out of that. So the discussion is, you know, 2 we don't want to approve a product that we're going to 3 be eliminating -- that we're in the process of 4 eliminating then. So that's what that referred to. 5 Q I'm passing to you what's previously been 6 marked as Exhibit 15. 7 (MEADOWS EXHIBIT 48 MARKED FOR IDENTIFICATION) 8 A Thank you. 9 Q Which is an e-mail chain that you're in, and 10 you're in the top chain as well. We're getting a top e- 11 mail from Grant Dow. It's dated October 27, 2011, and 12 tell me if you recognize this document -- 13 A Okay. 14 Q -- and what it concerns. 15 A Okay. 16 Q Do you recognize this? 17 A I remember when Grant was investigating this, 18 yes. 19 Q Okay. And what did this concern? 20 A This was -- I believe it was in Tucson, 21 Arizona, the contract was Spartan Plumbing, and that 22 there was a home that had had some leaks. And in 23 reading through these e-mails, I guess I'd like to see 24 the end of the -- I don't remember how the story ended. 25 But there's a lot of different, you know, suspects here.</p>	<p>1 talking about this earlier, PEX is very strong. It can 2 sustain, you know, an attack, a high increase in 3 pressure. It's the sustained exposure to pressure over 4 time that will shorten, you know, the life of the 5 product. It wouldn't burst right away, but it will 6 shorten the life of it. 7 Q Have you ever seen any studies done where it 8 correlates the level of pressure versus the duration of 9 the product's life? 10 A No, I have not seen any studies on that. 11 Q And by that, I don't mean just within NIBCO, 12 but within the industry? 13 A You know, I -- no. No, I'm not aware of any. 14 (MEADOW EXHIBIT 50 MARKED FOR IDENTIFICATION) 15 MR. DEUTSCH: You'll have to tell me what 16 exhibit we're on. Meadow -- 17 COURT REPORTER: This would be Meadow 50. 18 MR. DEUTSCH: 50. 19 BY MR. DEUTSCH: 20 Q Let's take a look another what we've marked as 21 Meadow 50, which is an e-mail chain where you received 22 the top e-mail From Mark Clark dated March 6, 2012, 23 encompasses Bates numbers Meadows 100873 through 874. 24 The subject of the top e-mail is renewal of PEX 25 approval, RR 5705. If you could take a look at this</p>

<p style="text-align: right;">Page 206</p> <p>1 document and tell me if you recognize it, and if so, 2 what it concerns. 3 A Okay. 4 Q Okay. And what does it concern? 5 A Well, we were working on renewing our PEX 6 approval in the city of Los Angeles, and Mark is our 7 standards and codes department, and so he was asking me 8 for some direction on what products we wanted to include 9 in that -- in that renewal. This was in, you know, 10 2012, and so California was either close or in the 11 process of banning yellow brass fittings, you know. And 12 so at the time we had plastic fittings, and then these - 13 - this home-run manifold was an all-plastic manifold 14 that we produced, and he wanted to know if that should 15 be included in the approval. And then in the last 16 paragraph he's mentioning that Los Angeles needs test 17 reports, and since we outsource all of our fittings, you 18 know, we don't have access to all of our vendors test 19 reports, and so it's something that we may be able to 20 get, but -- and I tell you the truth, I can't remember 21 how we resolved this issue. I think we eventually did 22 get the Los Angeles approval, but, again, it's a -- it's 23 a regulatory nightmare over there. 24 Q Okay. Then in the last paragraph you mention 25 on the first page, what tests were they seeking from</p>	<p style="text-align: right;">Page 208</p> <p>1 A Yes. 2 Q Mr. Hall, and who's Mr. Hall? 3 A Mr. Hall is with WinWholesale. They're 4 headquartered in Dayton. And I can't remember his 5 title, but he's, like, vice president, you know, he's a 6 head honcho. 7 Q Okay 8 A WinWholesale. This -- this involves those -- 9 those Linx fittings with the wrong alloy. And this 10 particular Windustrial branch in Anniston, Alabama, they 11 seemed to have been particularly affected by this. And 12 unfortunately, they had installed a lot of those 13 fittings, or plumbers that they had sold to had sold 14 those fittings in their area. And so I basically was -- 15 was sending a report to Bill giving him the status of 16 the claims and what we had outstanding and what we were 17 doing to take care of their -- their wholesale 18 distributor in Anniston and, in turn, the plumbing 19 contractor customers. So that's what this is about. 20 Q Okay. And I take it you were paying them back 21 in full; is that right? 22 A Yes. 23 Q And when it says "insurance review," like, on 24 the spreadsheet? 25 A Uh-huh.</p>
<p style="text-align: right;">Page 207</p> <p>1 NIBCO where -- 2 A You know, I'm not -- I'm not sure. But I -- I 3 think it may be just some confirmation that -- that the 4 product meets an applicable standard. 5 Q Okay. And you wouldn't routinely get such 6 reports transmitted to NIBCO from your suppliers? 7 A No, no. And I don't know how we got our -- I 8 know that we, before I left, I know -- I'm pretty sure 9 that we were close to getting the Los Angeles' approval. 10 But we may have been able to get those test reports from 11 vendors or gotten an exemption from them. I don't know 12 how it was resolved, Larry. Thank you. 13 Q If you could take a look at what we've marked 14 as Meadow 51, which is an e-mail from you to a person B. 15 Hall. The document encompasses Bates numbers Meadows 16 132068 through 132070, and then there's a spreadsheet 17 attached to Meadows 51. Doesn't have Bates numbers, 18 just appears to be some native format. So if you could 19 take a look at this and tell me if you recall sending 20 this e-mail and what it concerns. 21 (MEADOW EXHIBIT 51 MARKED FOR IDENTIFICATION) 22 A Okay. 23 Q Okay. And do you recognize this document? 24 A Yes. 25 Q And you sent this?</p>	<p style="text-align: right;">Page 209</p> <p>1 Q What is that referring to? 2 A Well, what -- what we did here, the process 3 with this particular customer, you see, you know, a lot 4 of different addresses and plumbing contractors, and so 5 each one of these was a different PER number. We tried 6 to keep them separate so that we had a paper trail for 7 each one rather than just throwing them into a big -- a 8 big bucket. And so this is basically a spreadsheet that 9 we maintained with -- with each one of these claims. 10 Now, this -- as I recall, this particular branch 11 manager, he was a super nice guy, but he wasn't the most 12 organized in the world, and so there was always -- you 13 know, one of the requirements that we had is that the 14 defective fittings had to be sent back to us, and 15 sometimes he was tardy in doing that and didn't put the 16 PER number on it, and so it was kind of a nightmare for 17 our technical services team at times, and then that 18 delayed the payment and then got others involved, and so 19 that's what this is about, Larry. 20 Q And when you look on the spreadsheet showing 21 all the different plumbers involved, was it that they 22 were the ones that sent in the PER requests, or had 23 the -- 24 A Well, I think what they were probably doing, 25 they were going to Anniston, and then Anniston, the</p>

<p style="text-align: right;">Page 210</p> <p>1 branch, the WinWholesale branch was handling the 2 paperwork between us and NIBCO. So he was taking care 3 of it through them. Again, it -- this was kind of a -- 4 for whatever reason, it was a hotspot for that 5 particular problem. You know, probably not a whole lot 6 of fittings, but caused a lot of, you know, issues that 7 we had to take care of, yes.</p> <p>8 Q And the next to the last page it lists the 9 company, Sunbelt marketing Inc., for each line, and I 10 know you've mentioned them in your testimony today.</p> <p>11 A Yes.</p> <p>12 Q Can you describe their relationship with 13 NIBCO?</p> <p>14 A Well, they are a sales agent that has had a 15 lot of relationship with NIBCO. They're headquartered 16 in Lithia Springs, Georgia, which is right outside of 17 Atlanta. They're a buy-sell agent, so they buy our 18 products. They have a warehouse, and then they sell to 19 our customers in the southeast, and their territory 20 ranges from South Carolina down to Florida, across 21 Georgia, Alabama, Mississippi, up to Louisiana.</p> <p>22 Q How were they different than a wholesaler?</p> <p>23 A Well, they sell to wholesalers. So they're 24 between NIBCO and the wholesaler. They -- we -- the 25 original idea was for them to sell to smaller</p>	<p style="text-align: right;">Page 212</p> <p>1 that in Alabama there was this concentration of these 2 Linx fittings, right?</p> <p>3 (MEADOW EXHIBIT 52 MARKED FOR IDENTIFICATION)</p> <p>4 A Yes.</p> <p>5 Q Now, are you aware of the Mobile, Alabama area 6 being a concentration of complaints with NIBCO PEX 7 tubing leaks?</p> <p>8 A Not specifically, no. I just I -- I -- I know 9 that the southeast and Alabama and Georgia, there's some 10 high pressure, you know, areas. But, no, I'm not 11 familiar with Mobile being a hotspot, I guess.</p> <p>12 Q Or other parts of Alabama?</p> <p>13 A No.</p> <p>14 Q Nobody's reported it when you were in charge 15 of PEX?</p> <p>16 A No.</p> <p>17 Q Nobody reported to you we're getting a lot 18 of --</p> <p>19 A No.</p> <p>20 Q -- complaints from --</p> <p>21 A No.</p> <p>22 Q -- Alabama?</p> <p>23 A No, no one's ever said that.</p> <p>24 Q Okay. And if you'll take a look at --</p> <p>25 A Oh, sure.</p>
<p style="text-align: right;">Page 211</p> <p>1 wholesalers that -- where it would be more efficient for 2 them to take care of them, because they hold local 3 stock, and they're smaller customers. But as time has 4 gone by, they've taken on some pretty big accounts. But 5 they've been selling for us for, gosh, probably 40 or 50 6 years, I'd say. And they've been a partner of ours for 7 a long time. In this particular case, they had sold the 8 fittings or supplied the fittings to Anniston, you know, 9 so...</p> <p>10 Q Is there any other organization that is 11 parallel to Sunbelt Marketing's position and its 12 relationship with NIBCO?</p> <p>13 A Yeah, there's one other company called David 14 Gooding, David Gooding, Incorporated. And they're 15 headquartered in the Boston area. And they handle New 16 England for us. Now, that's not a big PEX area for us, 17 so, you know, they do sell PEX, but they're not -- 18 there's not a lot that they sell up there.</p> <p>19 Q Is there any, let's say from Sunbelt Marketing 20 reselling to wholesalers, is there any other special 21 aspect of the relationship between NIBCO and Sunbelt?</p> <p>22 A No.</p> <p>23 Q Before -- I'm going -- I'm showing you now 52, 24 but before we get into that document, I just want to 25 address one thing you just brought up. You mentioned</p>	<p style="text-align: right;">Page 213</p> <p>1 Q -- Meadow 52, which encompasses Bates numbers 2 Meadows 46830 to 46831. It's an e-mail chain that you 3 were included in on the first page. Top e-mail is 4 December 20, 2012 from Lori Stanger to Ken McCoy, and if 5 you could tell me if you recognize the part that's 6 redacted, as to what it concerns?</p> <p>7 A Okay.</p> <p>8 Q Do you recognize this e-mail chain?</p> <p>9 A Yeah, I think I remember -- I remember the 10 situation.</p> <p>11 Q And what do you recall about this particular 12 issue?</p> <p>13 A Well, we had a customer that had some brass 14 fittings that failed, and we did an evaluation and, you 15 know, it's one of those things where we don't know 16 exactly what was -- what the water conditions were, but 17 we suspected that something with the water was attacking 18 the fittings. And so in this case, Matt Power, who is 19 our local area sales manager, and Kate Emery, who was 20 the PEX regional sales manager, they wanted to know if 21 I'd make a goodwill payment, you know, because this was 22 very unusual, because we didn't have very many, you 23 know, problems with the metal fittings. And here's a 24 situation where something is strange happening with the 25 water, and we felt that it was -- it would be a good</p>

<p style="text-align: right;">Page 214</p> <p>1 idea for this particular user to switch to the poly 2 alloy fittings. So they had asked if I would pay -- 3 make a goodwill payment of, I don't know, \$500 or so. So 4 I recommended that, and I don't remember exactly what 5 happened after that. I supported it with my team. 6 Q Okay. On the second page of this the e-mail 7 seems to refer to Linx. So wouldn't this fit into the 8 issue with the defective Linx fittings that were sold to 9 users? 10 A Well, you know, we -- we bought a lot of 11 fittings from Linx, so I don't know if here we're 12 referring to those Ts that we talked about where the 13 wrong alloy was installed or if -- because you're saying 14 -- this customer's saying multiple issues with Linx -- 15 with Linx fittings. But it could be -- I don't think 16 this was related to the issue with the wrong alloy that 17 we've been talking about. I think this is just Linx was 18 one of our suppliers, and they -- in this case, they 19 were -- they had fittings from Linx as their supplier. 20 Q Was there a method to determine which were the 21 bad Linx fittings that were sold to the public? 22 A Oh yeah, yeah. We knew. We had lot numbers 23 and we knew -- you know, knew the configurations of 24 them. I don't know if this -- I don't think they say 25 here what this fitting is. But as I recall, this was --</p>	<p style="text-align: right;">Page 216</p> <p>1 very often, Larry. I -- less than a handful do I 2 remember of any metal fittings, you know, failing in 3 service. 4 Q Okay. 5 COURT REPORTER: Can we go off for just a 6 second? 7 MR. DEUTSCH: Okay. 8 (OFF THE RECORD) 9 BY MR. DEUTSCH: 10 Q So I'd like you to take a look at what we've 11 marked as Meadow 53. It encompasses -- it's a one-page 12 document, Bates number Meadows 130903. It's an e-mail 13 sent to you from a Jarrod Brigham dated January 28, 14 2013. If you could take a look at this and tell me what 15 this concerns. 16 (MEADOW EXHIBIT 53 MARKED FOR IDENTIFICATION) 17 A This involved the -- the Linx fittings with 18 the wrong alloy in them. We were -- you know, claims 19 were made, and then we'd get ahold of Linx, and they'd 20 get ahold of their insurance area. And we were pretty 21 good at knocking these things off, but with -- with the 22 number of different people involved and getting samples 23 and documentation, the insurance carrier wasn't -- they 24 weren't the best at getting things paid promptly. And 25 with a lot of these claims, people were getting their</p>
<p style="text-align: right;">Page 215</p> <p>1 this was a separate issue unrelated to the product 2 exchange that we conducted on the handful of fittings 3 that had the wrong alloy in them. You know, we felt 4 there was something here. We don't know what, but there 5 was something with the water that was causing an attack 6 on things. 7 Q So when you say it had something to do with 8 the water, was there tests done on the water that 9 determined that it was a water problem rather than a 10 product problem? 11 A I -- I do not know. I do not know. I think 12 that here, since it's a metal fitting, I think that our 13 -- our technical team looked at it, saw what the 14 corrosion looked like and how long it had been in 15 service and made a determination it was a corrosive 16 water issue. 17 Q Do you know, did they routinely use some 18 standardized water tests to determine when they would 19 describe a failed fitting to water rather than the 20 product? 21 A Well, you know, other than -- other than that 22 Linx situation with the fittings with the wrong alloy, 23 this was an extremely rare occurrence. We had -- even 24 though we were selling yellow brass, we had very few 25 problems with fittings, and so it just didn't happen</p>	<p style="text-align: right;">Page 217</p> <p>1 money, but they're having to wait, you know, sometimes, 2 you know, a couple of months or longer. And so I think 3 in this -- in this case Jarod, who is in our technical 4 service department, he wanted to, I don't know who this 5 customer is, but someone that had a Linx claim, and he 6 wanted to send something to this customer explaining the 7 delay, and then he apparently asked me to -- to edit it. 8 I don't know what my edits were, because it's just all 9 black, so I don't see my red edits. So I think that 10 this was -- is what this was about. 11 Q Okay. And the insurance company that's 12 referred to here in the bottom e-mail from Jarod, it's 13 the insurance company of Linx; is that right? 14 A Correct. Yeah, yeah, yeah, yeah. So what we 15 did to kind of mitigate things, if there were small 16 claims, we just went ahead and stuck our neck out and 17 paid them and got reimbursed from Linx' insurance 18 carrier. 19 Q And by the way, did you have a certain 20 authority of, when you approved a goodwill payment on 21 one of these situations we've looked at, did you have a 22 certain dollar level that you preauthorized? 23 A No, but I usually -- well, you saw that I had 24 sent it to our attorney, Lori Stanger. I usually had to 25 get her approval or someone from legal, you know, to</p>

<p style="text-align: right;">Page 218</p> <p>1 approve it. But there were no dollar -- set dollar 2 amounts. 3 Q Okay. Is there a set dollar amount to go to 4 Steve Malm? 5 A No, I don't think we had anything set up. It 6 just kind of depended on the -- on the case and the 7 circumstances and... 8 Q If you could take a look at what we've marked 9 as Meadow Exhibit 54, and this encompasses Bates numbers 10 Meadows 133458 through 464. It's an e-mail chain that 11 you're involved with -- dated March 7, 2013 e-mail at 12 the top, and it concerns "Linx Debit Memo," and tell me 13 if you recognize this and what it concerns. 14 (MEADOW EXHIBIT 54 MARKED FOR IDENTIFICATION) 15 A Okay. I can comment on this. 16 Q Okay. What is this? 17 A Well, this is -- again, this is the Linx 18 fittings that had the wrong alloy in them and, again, 19 with wholesale, with Nelson -- this is Evansville with 20 Nelson, Evansville, Indiana, they're part of the 21 WinWholesale, and they had a fairly sizable claim that 22 hadn't been paid by Linx. And so our vice president of 23 sales and marketing, Mark Hamilton, went to Chris Mason, 24 who's vice president of supply chain, and said, "Hey, 25 you know, they waited a long time. This is starting to</p>	<p style="text-align: right;">Page 220</p> <p>1 in two -- in a year. 500 to 600 million. 2 Q A year? 3 A Yeah. 4 Q By the way, who's Dane Badgero? 5 A He's the sales manager for WinWholesale. 6 Q And do you know what the total value of the 7 Linx claims that came in that were paid by Linx and or 8 NIBCO? 9 A I can't remember the exact number, but, you 10 know, I think that it was, you know, several hundred 11 thousands of claims. You know, maybe as much as 12 350,000, something like that, maybe. 13 Q 350,000? 14 A Yeah. 15 Q Okay. 16 A I -- I can't remember the exact amount. It's 17 just been too far. 18 Q Did Linx remain a supplier of NIBCO during 19 your duration there? 20 A They -- they did. I don't know if they're a 21 supplier to us today. 22 MR. DEUTSCH: Okay. Mark the next one. 23 (MEADOW EXHIBIT 55 MARKED FOR IDENTIFICATION) 24 Q If you could take a look at what we've marked 25 as Meadow 55, which is an e-mail chain with you</p>
<p style="text-align: right;">Page 219</p> <p>1 be kind of a hot issue, you know. Can -- can we 2 expedite this somehow?" And, you know, Chris, of 3 course, wants to file a long process that we have, that 4 meant there was going to be more delays, and so it was 5 just becoming a tough issue with one of our major 6 customers. And so it looks like here that Chris 7 contacted the Linx CEO, and then they agreed that we 8 could debit them from their account and then issue a 9 check on WinWholesale. So they expedite the process, 10 and then we catch up later when we got the claim from 11 Linx. So that's how they resolved that issue. 12 Q Okay 13 A For -- WinWholesale's probably one of NIBCO's 14 top five customers. Very significant account for us. 15 Q So when you say "significant," what would be 16 the level of sales to them in an average year? 17 A Well, there -- I don't know. Actually, my 18 wife handles their account. But I mean, they're 19 significant. They're -- you know, they might be ten 20 percent, something like that, of our business. 21 Q Ten percent of NIBCO's business? 22 A Yeah, possibly. 23 Q And what's the annual sales of NIBCO's 24 business approximately? 25 A Well -- well, you know, I haven't been there</p>	<p style="text-align: right;">Page 221</p> <p>1 receiving the top e-mail in a chain from Ken McCoy. It's 2 concerning a PER and then encompasses Bates numbers 3 131364 through 131367. The top of the e-mail chain is 4 from May 29, 2013. Tell me -- take a look at this, tell 5 me if you recognize it. 6 A Okay. 7 Q Do you remember receiving this e-mail? 8 A I don't -- I don't remember this one, per se. 9 Q Do you remember the issue reflected in this e- 10 mail chain that you're involved in? 11 A Well, you know, I think, again, this involves 12 the Linx fittings that -- with the wrong alloy, and in 13 this case, because it's Dane Badgero, it's probably a 14 WinWholesale location, and, you know, they want to get 15 their claim paid, but it looks like they were slow in 16 getting the necessary information and samples back to 17 us, and that's the situation. I'm sure they got paid. I 18 don't know exactly when. 19 MR. SHAMBERG: Can we go off the record for one 20 minute while he reads this one? 21 MR. DEUTSCH: Yeah. 22 MR. SHAMBERG: Thanks. 23 (OFF THE RECORD) 24 BY MR. DEUTSCH: 25 Q Back on the record with a new court reporter.</p>

<p style="text-align: right;">Page 222</p> <p>1 So if you could take a look at what we've marked as</p> <p>2 Meadow 56, which encompasses Bates numbers 116072</p> <p>3 through 73. It's an e-mail chain that you sent an e-</p> <p>4 mail to various people on. It concerns a PER number.</p> <p>5 (MEADOW EXHIBIT 56 MARKED FOR IDENTIFICATION)</p> <p>6 A Uh-huh.</p> <p>7 Q If you could take a look at this, tell me if</p> <p>8 you recognize it and what it concerns?</p> <p>9 A Yes, I recognize it. This was, again, the</p> <p>10 Linx fittings with the wrong alloy. This is for a</p> <p>11 wholesale distributor Cregger, pretty large customer. It</p> <p>12 likes like there was a delay in getting the fitting</p> <p>13 evaluated, and I recommended that we pay -- make a</p> <p>14 goodwill payment ahead of the -- getting the insurance</p> <p>15 claim.</p> <p>16 COURT REPORTER: Is this 50 --</p> <p>17 MR. DEUTSCH: This is 57. Meadow 57.</p> <p>18 (MEADOW EXHIBIT 57 MARKED FOR IDENTIFICATION)</p> <p>19 Q If you could take a look at what we've marked</p> <p>20 as Meadow 57. It's a one-page document, Bates number</p> <p>21 Meadows 117793. Upper left-hand corner it says, "SAP</p> <p>22 notes"; do you know what this document is?</p> <p>23 A These are notes with -- that our SAP operating</p> <p>24 system on a particular PER.</p> <p>25 Q So if you print it out, this is what it looks</p>	<p style="text-align: right;">Page 224</p> <p>1 A Accounts payable.</p> <p>2 Q Okay. And then second line from the bottom it</p> <p>3 says, "Brian Lee. Waiting for Brian Lee to release the</p> <p>4 check." Do you know who he is?</p> <p>5 A Yes. He's in our purchasing department, and</p> <p>6 since he would not be involved -- since he's in</p> <p>7 purchasing, he would not be involved in this unless it</p> <p>8 was one of those Linx fitting issues that we've been</p> <p>9 talking about here, because he was managing that --</p> <p>10 those claims. So I -- I suspect that this was a Linx</p> <p>11 fitting issue.</p> <p>12 Q I see on the first line of the claim it says,</p> <p>13 "Installed February 8, 2011; failed May 31, 2011." So</p> <p>14 it appears that it failed in three or four months?</p> <p>15 A Yes.</p> <p>16 Q And was that common for the Linx problems,</p> <p>17 that they failed promptly?</p> <p>18 A Yeah, if they failed, they failed soon after</p> <p>19 installation.</p> <p>20 Q Okay. Take a look at what we've marked Meadow</p> <p>21 58, which has Bates number Meadows 135196. It looks</p> <p>22 like this is an exhibit previously that you may have</p> <p>23 seen, 120, back in year 2015. If you could take a look</p> <p>24 at this one-page document and tell me if you recognize</p> <p>25 it. I mean, it was an e-mail from you.</p>
<p style="text-align: right;">Page 223</p> <p>1 like for a client?</p> <p>2 A Yes.</p> <p>3 Q Okay.</p> <p>4 A For an evaluation request.</p> <p>5 Q Okay. Now, in this document on the fourth</p> <p>6 line down it says, "T.O," or, "T.I material issue"; do</p> <p>7 you know what that refers to or what that means?</p> <p>8 A I -- I mean, I don't know this specific claim.</p> <p>9 Q Okay. I'm actually asking: Are those, like,</p> <p>10 shorthand terms used by NIBCO when considering the</p> <p>11 claims made by buyers of NIBCO products?</p> <p>12 A Like, which line are we talking about?</p> <p>13 Q I'm sorry. I'm on the one, two, three, fourth</p> <p>14 line down into these notes.</p> <p>15 A Like, the 831-11 --</p> <p>16 Q Yes.</p> <p>17 A -- TO material issue?</p> <p>18 Q Yes.</p> <p>19 A All I could speculate is that there was an</p> <p>20 issue with the material of this fitting, and then it</p> <p>21 looks like we paid a claim to the -- to whoever</p> <p>22 submitted this.</p> <p>23 Q And the third line from the bottom it says,</p> <p>24 "Check request through AP." Do you know what AP refers</p> <p>25 to?</p>	<p style="text-align: right;">Page 225</p> <p>1 (MEADOW EXHIBIT 58 MARKED FOR IDENTIFICATION)</p> <p>2 A Yeah, I recognize this.</p> <p>3 Q Okay. And what does this concern?</p> <p>4 A Well, we were -- Christianson Plumbing was</p> <p>5 buying our products, and we had talked to them about</p> <p>6 coming to Lebanon for a plant tour, and so this was, you</p> <p>7 know, for them to come and get a plant tour and see how</p> <p>8 we make PEX tubing.</p> <p>9 Q Okay. Had they been buying somebody else's</p> <p>10 PEX products prior to buying NIBCO's?</p> <p>11 A Yeah, I think so. I don't remember who, but</p> <p>12 yeah, yeah. And I can't remember when they switched to</p> <p>13 us, but probably earlier that year, you know, that we --</p> <p>14 Tom -- or Doug Kalberer, it was his account, so he may</p> <p>15 have conferred with them earlier in the year.</p> <p>16 Q Okay. By the way, Mr. Kalberer's territory</p> <p>17 was -- encompassed what area of the country?</p> <p>18 A Just central U.S., you know, from Texas, the</p> <p>19 Plains states up to, you know, Wisconsin and Minnesota</p> <p>20 and the Dakotas.</p> <p>21 Q Okay. Did it include Alabama?</p> <p>22 A No.</p> <p>23 Q Okay. Now, you state in that e-mail that</p> <p>24 Christianson is one of the biggest end-users of our</p> <p>25 product. Do you know how large their amount of</p>

Page 226

Page 228

1 purchases was?

2 A I can't remember. But they were -- they were
3 a good size customer. You know, they -- I -- I can't
4 remember how big they were, though.

5 Q Okay. And you were showing them the plant
6 just to encourage them to use your product; is that
7 right?

8 A Well, they were already using our product and
9 it was a -- just, you know, they -- we had invited them
10 to the plant, and it was a marketing tool used by us.
11 Usually when people came and we showed them the
12 operation, the E-BEAM, they were usually, you know, very
13 impressed with what we were doing and, you know, we felt
14 like it really, you know, cemented our relationship and
15 what we were doing.

16 Q And in your e-mail you say -- it's in the
17 middle of the e-mail, you say, "You may still be moving
18 equipment in boxes around." What was going on at the
19 plant at this point in time? This is in December of
20 2008 when you write the e-mail.

21 A We had -- previously we were leasing space
22 from E-BEAM Services for our extrusion department, and
23 we had acquired a building across the street, and we
24 were in the process of moving into the new building.

25 Q Now, subsequent to this, there was a dispute

1 Q Okay. Do you know if Christianson is still a
2 customer of NIBCO?

3 A I don't know. I'm no longer employed at
4 NIBCO.

5 Q Do you know what the nature of the
6 installation failure was? If I remember right, I think
7 it was something like 57 houses involved; does that
8 sound right?

9 A Yeah. I think that one of the -- well, I'm
10 trying to remember, but I -- you know, I think there
11 were issues with bend radius and handling of -- of the
12 material.

13 Q Could you repeat that?

14 A I think that there were some issues with
15 exceeding the bend radius and general handling of the
16 material, yeah.

17 Q Okay. When you say "general handling of the
18 material," what are you referring to?

19 A Well, I -- I'm -- well, you know, I don't
20 remember this completely, but I think beyond the bend
21 radiuses there were some gouging in the materials is --
22 as I recall it. But I think that there were other
23 issues.

24 Q And, again, you gave testimony in a deposition
25 in that case, right?

Page 227

Page 229

1 with Christianson Plumbing, right?

2 A Yeah, yeah. A few years later.

3 Q Okay. And they ultimately sued NIBCO, right?

4 A Yes.

5 Q And their allegation was that the NIBCO PEX
6 product was defective, right?

7 A I'm not familiar with exactly what the claim
8 they were making, but, yeah.

9 Q But you appear as if at least you got deposed
10 in the case, right?

11 A Yeah.

12 Q Okay.

13 A Yeah.

14 Q And what was the resolution of that case?

15 A I don't know, because I think it was resolved.
16 I don't know -- I don't know how it was resolved. I
17 think I had left NIBCO by the time that was settled.

18 Q Okay. Did you ever hear what happened to the
19 case?

20 A No.

21 Q Okay. Am I correct the understanding was your
22 contention, you on behalf of NIBCO, that there was no --
23 nothing wrong with the product, that it was entirely due
24 to installation that the product failed?

25 A That's correct.

1 A Yes.

2 Q Okay. Is there anything in that testimony
3 that you would change as you sit here today?

4 MR. KUHLMAN: Object to form.

5 A No.

6 Q Okay. If you could take a look at what we've
7 now marked as Meadow 59. It's a document Bates numbers
8 134644 through 134648. It's an e-mail chain where
9 you're a recipient of the top e-mail from Debbie Premus
10 dated February 1, 2011. If you take a look at this
11 document and tell me if you recall receiving it while
12 you worked at NIBCO?

13 (MEADOW EXHIBIT 59 MARKED FOR IDENTIFICATION)

14 A Okay.

15 Q Okay. Do you recognize this e-mail chain that
16 you were a copy of?

17 A Yeah, I do recall some elements of it.

18 Q Okay. And I'll let you describe the issues
19 with this.

20 A Well, I think this was, you know, before we
21 did gel testing in order to evaluate PEX that had --
22 that had an oxidative failure. So that this is really
23 when we started talking about doing more in terms of
24 evaluating samples, you know, when they -- when they
25 come back rather than just a kind of a visual

<p style="text-align: right;">Page 230</p> <p>1 examination. And so this e-mail chain really represents 2 some of the dialogue that we had about, you know, what 3 could we do to better evaluate the samples that came in. 4 And what happened after this is we made it a standard 5 procedure to send samples to Jana Labs for a gel test to 6 determine the degree of cross-linking, and then a couple 7 of years ago, we went even further and purchased our own 8 equipment that would allow us to do a gel test 9 evaluation. 10 Q So a gel test evaluation, after that point in 11 time, was consistently done for products that came in 12 for a seemingly oxidative failure? 13 MR. KUHLMAN: Object to form. 14 A Well, I -- I think we did it on those. I 15 don't know if it was limited only to those, but it was 16 -- it was part of the evaluation. 17 Q So do you do it to all PEX piping that was 18 submitted to NIBCO by the end-user? 19 A Once we started the procedure, I think we 20 certainly did it when we -- when we thought that -- when 21 we saw evidence of oxidative failure. You know, we 22 would check the gel to make sure that we, you know, had 23 the -- had the necessary cross-linking in the tubing, 24 yes. 25 Q And the reason you started doing it at that</p>	<p style="text-align: right;">Page 232</p> <p>1 She's saying, "The location of the failure is only 2 Texas, again, outside of the expected geographic areas. 3 And the second Texas complaint received in the last 4 month." So she's referring to outside the expected 5 geographic areas. Do you know, at this point in time, 6 this is 2011, what the geographic areas that you'd 7 expect failures to be in? 8 MR. KUHLMAN: Object to form. 9 A I don't know what she's referring to there in 10 that statement. 11 Q Well, if we flip to the last page of this 12 exhibit, Meadow 59, and the last page it says, "The 13 first is that the customer, Winnelson, is in the 14 Lebanon, Missouri area rather than the Charlotte and 15 Mobile areas in which we have been seeing this kind of 16 failure," and she's referring to oxidative-type failure? 17 A Uh-huh. 18 Q So does that indicate to you that those were 19 problem areas, Charlotte, Mobile at least? 20 MR. KUHLMAN: Object to form. 21 A Well, she seems to be indicating that, that 22 Charlotte and Mobile were areas where we had seen a 23 failure like that. 24 Q Okay. Do you have reason to disagree with 25 her, that those were areas that had oxidative failures</p>
<p style="text-align: right;">Page 231</p> <p>1 point in time was why? 2 A Well, you know, Debbie would look at things 3 like the swell of the -- of the tubing, which is the 4 difference in the dimensions, you know, which was 5 returned versus those which it was sent, you know, 6 because it was -- sometimes that was an indicator. But 7 it was all based on visual inspections, and I felt like 8 we needed something more data driven, more definitive 9 tests. And so in the e-mail, we're talking about, you 10 know, doing gel testing. And then we also talked about 11 a UV test, because UV can -- if PEX tubing's left 12 outside for too long, it could lose some of its 13 properties due to UV. So we were looking at a test for 14 that as well. 15 Q Okay. Is it fair to say that NIBCO concluded 16 gel tests, based upon getting input from customers, that 17 the product was failing in certain locations? 18 MR. KUHLMAN: Object to form. 19 A No, no. It was -- had nothing to do with 20 locations. We were, you know, we just felt that that 21 was a tool that we ought to use to evaluate whether we 22 were meeting, you know, the requirements of the product, 23 you know. 24 Q So what I'm looking at is in the very first 25 top of the e-mail. Debbie Premus is writing to you.</p>	<p style="text-align: right;">Page 233</p> <p>1 reported to NIBCO? 2 A Well, we've talked about the CPI pipe in the 3 Charlotte area that was -- you know, where the water 4 pressure issues were. So that's not surprising. You 5 had mentioned Mobile earlier, so I guess that that had 6 been, I guess, a hotspot. 7 Q Do you know if anybody ever investigated what 8 the root cause of failures in Mobile were? 9 A In Mobile, specifically? 10 Q Yeah, Mobile, Alabama? 11 A I don't recall any. 12 Q So on page 134646, at the bottom Debbie Premus 13 is again sending an e-mail to you and other NIBCO 14 people, and she's referring to several years ago when we 15 were trying to determine the root cause of the CPI 16 problem. Is that what you're referring to? 17 A Which paragraph? 18 Q I'm sorry. Very bottom of Meadow's Bates 19 number 134646? 20 A Yes. 21 Q Debbie Premus is sending you an e-mail on 22 January 25, 2011? 23 A Yes. 24 Q Where she's referring to "several years ago 25 when we were trying to determine the root cause of the</p>

<p style="text-align: right;">Page 234</p> <p>1 CPI problem and the results were all over the map, some 2 low and some higher than even our average today. The 3 low versus high result seem to correspond to the E-BEAM 4 dose history, and I'm expecting the NEXT-Pure sample 5 will likely pass based on the MRad dose being given at 6 the time." So what's your understanding of the CPI 7 problem she's referring to of several years before? So 8 she's writing in 2011 that she's referring to a few 9 years prior to that.</p> <p>10 A Well, I'm not exactly sure what she's 11 referring to here.</p> <p>12 Q On the prior page, 134645, there's an e-mail 13 from Ken McCoy to you and other NIBCO people, January 14 26, 2011 where he's discussing the proposal to do more 15 testing. He says, "If it costs some money upfront to 16 find out how to better identify these sorts of issues 17 and to be able to definitively say such issues are not 18 NIBCO's responsibility as a manufacturer, then it will 19 be well worth it in the long run, in my opinion." Is 20 your understanding that Mr. McCoy, his view was to come 21 up with a basis to say it wasn't NIBCO's manufacturing 22 problem that was causing some of these oxidative 23 failures referred to in the Meadows 59?</p> <p>24 MR. KUHLMAN: Object to form.</p> <p>25 A No, I think he -- I think he wants to confirm</p>	<p style="text-align: right;">Page 236</p> <p>1 been properly cross-linked or not. What -- what we 2 ended up doing is we sent samples to Jana Labs, and then 3 they would conduct the gel test. And then eventually we 4 invested and got our own equipment. We were never able 5 to come up with a UV test.</p> <p>6 Q When you use the term "swag" in that context, 7 what do you mean?</p> <p>8 A Oh, swag. It's a slang word for -- not 9 precise. It was just kind of, I think, you know, just a 10 cheap test to do a quick evaluation, whereas what we 11 were doing would give us a very specific crosslink 12 percent number.</p> <p>13 Q Okay. At this time when you were assessing 14 the test you might do in house for NIBCO's PEX products, 15 was there some consideration to come up with a test 16 protocol for fittings and clamps?</p> <p>17 A Well, no, because, you know, we had -- we had, 18 you know, good people. We had a metallurgist. It's 19 different than plastics. You know, we were fairly, you 20 know, pretty good at evaluating fittings and clamp 21 issues.</p> <p>22 Q If you could take a look at what was 23 previously marked as Exhibit 17 in the Meadows case. 24 It's an e-mail chain that you were a recipient on. It's 25 Bates -- oh, okay. It's Exhibit 17. It's not the next</p>
<p style="text-align: right;">Page 235</p> <p>1 that we met the requirements, and that would be the case 2 for either paying for someone to check the gel test on 3 the outside or do it ourselves.</p> <p>4 Q Again, at the top of the e-mail Debbie Premus 5 writes to you, and in the second paragraph she says, 6 "The second sample, Terracotta PEX crimped to a brass 7 Tee, definitely has an oxidative-type crack." Do you 8 have an understanding of why she's referring not just to 9 the Terracotta PEX but also the brass T in that context?</p> <p>10 A Well, I think, in this case, she's just 11 identifying the sample of the -- sometimes people would 12 send in samples. It was just the tubing and sometimes 13 there'd be a fitting attached. So she's using this to 14 describe the sample she received.</p> <p>15 Q Now, down at the bottom of the first page, 16 Meadow 59, you wrote an e-mail to various people, 17 January 27, 2011, and you cite information to Doug Grant 18 as to how Uponor evaluates tubing failures.</p> <p>19 A Yeah.</p> <p>20 Q Now, is that something that you then had 21 implemented?</p> <p>22 A Well, we didn't do what-- what Uponor was 23 doing. You know, they did kind of a -- they had some 24 quick test where they exposed the tubing to a chemical 25 agent and did kind of a swag to determine whether it had</p>	<p style="text-align: right;">Page 237</p> <p>1 one. Could you tell me if you recognize this document 2 and what it concerns?</p> <p>3 A Okay.</p> <p>4 Q Do you recognize this e-mail chain that you 5 received?</p> <p>6 A No, I don't remember this specific one.</p> <p>7 Q Okay. Do you recall what this is about?</p> <p>8 A Well, we suspect that there was UV exposure, 9 and so we're asking for additional testing to be 10 conducted.</p> <p>11 Q Okay. In Doug Grant's e-mail that he copied 12 you on February 4, 2011, he says, "I would suggest we 13 proceed with the gel test, knowing the amount of cross- 14 linking, and the sample is important information for our 15 area associates to have when dealing with an atypical 16 failure." Would you agree with that statement by Grant, 17 Doug?</p> <p>18 A Well, not knowing all the details of the case, 19 I don't see any -- any harm in doing that.</p> <p>20 Q Okay. That's a -- an important test, the gel 21 test, to determine cross-linking in a product, right?</p> <p>22 MR. KUHLMAN: Object to form.</p> <p>23 Q Would you agree with that?</p> <p>24 A Well, we test -- we test when we produce 25 products. We test for gel testing before it leaves, so</p>

<p style="text-align: right;">Page 238</p> <p>1 yes.</p> <p>2 Q You think it's an important component?</p> <p>3 A Sure.</p> <p>4 Q And it shows whether -- it can indicate</p> <p>5 whether or not the product was produced properly and</p> <p>6 meets the standards for certification, right?</p> <p>7 A Uh-huh.</p> <p>8 MR. KUHLMAN: Object to form.</p> <p>9 Q And in this e-mail from Doug Grant that he</p> <p>10 sent to you, he refers to it, something as an atypical</p> <p>11 failure. So I'm wondering, is there something you would</p> <p>12 characterize as typical failures of the Del PEX tubing</p> <p>13 products?</p> <p>14 MR. KUHLMAN: Object to form.</p> <p>15 A No, I really -- no, I don't really recall</p> <p>16 this, and I don't know what it looked like or what --</p> <p>17 what had happened. But, you know, our technical people</p> <p>18 obviously had some concerns about it.</p> <p>19 Q If you could take a look at what's been</p> <p>20 previously marked as Meadow 16 in an e-mail chain that</p> <p>21 you're in the middle of, and tell me if you recognize</p> <p>22 this e-mail chain that you were sent, and if so, what it</p> <p>23 concerns?</p> <p>24 A Okay.</p> <p>25 Q Do you recognize this document?</p>	<p style="text-align: right;">Page 240</p> <p>1 A I -- you know, I don't recall. I don't think</p> <p>2 this is a broadcast letter. I think we sent this to</p> <p>3 some customers, and I don't really remember who we --</p> <p>4 who we sent it to. But I think that this is just, you</p> <p>5 know, just a letter intended to, you know, promote our</p> <p>6 PEX product line.</p> <p>7 Q Okay. And you titled it to, "Dear valued</p> <p>8 customers," so it wasn't like a broad mailing that you</p> <p>9 did?</p> <p>10 A Well, I don't remember this being a broad</p> <p>11 mailing. I think that it was a few that was just sent</p> <p>12 to some -- I think that this was just something we put</p> <p>13 together that if the salespeople wanted to give this to</p> <p>14 one of our customers they -- you know, they had the</p> <p>15 option of doing it. We did not do a broadcast of this,</p> <p>16 I'm pretty sure.</p> <p>17 Q Was this in reaction to something that</p> <p>18 happened, or just part of a marketing --</p> <p>19 A I don't think so. No, it was just part of a -</p> <p>20 - it was just kind of a selling piece to point out, you</p> <p>21 know, what the -- what the strengths of our product line</p> <p>22 were.</p> <p>23 Q Now, in this letter on the first page, you use</p> <p>24 the term "aggressive water." How would you define that</p> <p>25 as you intended it to be used in the context?</p>
<p style="text-align: right;">Page 239</p> <p>1 A Well, I don't -- I don't specifically -- yeah,</p> <p>2 I kind of have a general knowledge of this, what it is.</p> <p>3 Q What do you recall about this?</p> <p>4 A Well --</p> <p>5 Q This PER and how it was handled?</p> <p>6 A This is similar to what we, you know,</p> <p>7 discussed before, you know, we were looking for a way to</p> <p>8 do some additional testing, and then in this particular</p> <p>9 case, we -- we sent the sample to Jana to confirm that</p> <p>10 it met the minimum gel requirements.</p> <p>11 Q And you're saying that it did in this case?</p> <p>12 A Yes.</p> <p>13 Q And therefore, you rejected the claim as not</p> <p>14 being a factory defect?</p> <p>15 A Correct. Or our technical people did.</p> <p>16 Q Okay. If you could look at what we've marked</p> <p>17 as Meadow 60, which is a two-page document with Bates</p> <p>18 numbers Meadows 6301 through 6302. It's a May 18, 2011</p> <p>19 NIBCO letter that you signed. It's dated May 18, 2011.</p> <p>20 Just take a look at this and tell me if you recognize</p> <p>21 this letter that you apparently sent?</p> <p>22 (MEADOW EXHIBIT 60 MARKED FOR IDENTIFICATION)</p> <p>23 A Yes, I recognize it.</p> <p>24 Q Okay. And why did you send this letter at</p> <p>25 this point in time, May 18, 2011?</p>	<p style="text-align: right;">Page 241</p> <p>1 A Well, you know, we talked about this earlier.</p> <p>2 NIBCO led the charge to move away from yellow brass, and</p> <p>3 so aggressive water, in this case, is just a general</p> <p>4 term for water that can corrode yellow brass fittings.</p> <p>5 Q Was -- are any parameters that would define</p> <p>6 what aggressive water is as you've used in this specific</p> <p>7 letter?</p> <p>8 A No, because it varies from -- from area to</p> <p>9 area.</p> <p>10 Q Okay. On the second page of this letter you</p> <p>11 sent on May 18, 2011 you say, "Our manufacturing</p> <p>12 facility is ISO 9001 compliant." Could you explain what</p> <p>13 that involves?</p> <p>14 A Well, ISO is an organization that looks at</p> <p>15 your quality system and then grants you a certification,</p> <p>16 and so what we're trying to say here is that, you know,</p> <p>17 our plant, you know, meets the highest quality</p> <p>18 standards.</p> <p>19 Q And how do you achieve this ISO 9001?</p> <p>20 A Oh, yeah, yeah. There's an outside firm that</p> <p>21 comes in and conducts an audit of the quality systems.</p> <p>22 Q What aspects do they look at of NIBCO's PEX</p> <p>23 business?</p> <p>24 A Well, I've never actually been part of the</p> <p>25 audit, but I think they look at the systems that you</p>

Page 242	Page 244
<p>1 have in place and your quality manual and your systems 2 and just everything involving your quality system. 3 Q And why do you tout that in your letter? 4 A Because most companies do. Even at my most 5 recent employer, we just got ISO certified for 2000 -- 6 it was 2014. And so marketing people typically tout 7 those things, because you want your customers to think 8 that, you know, your -- your quality control mechanisms 9 are -- are very high and most recently audited according 10 to the latest standards. 11 Q Is there a set of printed standards for ISO 12 9000 compliance? 13 A I don't know. You know, it involves 14 operations -- you know, your operations. It's not a 15 product standard. It's -- it's an audit of your 16 procedures, you know, that you have in a plant or a 17 facility. So there's a lot of companies that probably 18 aren't ISO compliant, and that's why ones that are ISO 19 compliant like to -- you know, just a way to brag a 20 little bit, I suppose. 21 Q Okay. Now, in your letter in the Meadow 60 22 May 18, 2011 letter, you state in the bottom paragraph 23 on the first page, "To our knowledge, we're the only PEX 24 manufacturer in North America that 100 percent tests its 25 tubing to ensure that it's free of the tiniest devoid in</p>	<p>1 marked as Meadow 61, which encompasses Bates numbers 2 134691 through 134697 in the Meadows case. And it's an 3 e-mail chain that you're participating in or a 4 participant in. The date of the e-mail is June 22, 5 2011, e-mail from Ken McCoy to you concerning the NIBCO 6 contact form. If you could take a look through this and 7 tell me if you recognize this e-mail that you were 8 copied on? 9 (MEADOW EXHIBIT 61 MARKED FOR IDENTIFICATION) 10 A Okay. 11 Q Okay. Do you recognize this e-mail chain that 12 you were involved in? 13 A Well, I don't -- I don't remember this one, to 14 tell you the truth. 15 Q Okay. Do you have memory of addressing the 16 complaint of this person, looks like Jeff Deacon is the 17 person complaining about the tubing he got from NIBCO? 18 A No, I don't, and I don't know how this was 19 resolved. 20 Q Okay. And you just answered my question. I 21 was going to ask you that, how it was resolved. If you 22 could turn to NIBCO Meadows page 134695? 23 A Yes. 24 Q And this is an e-mail Jeff Deacon is sending 25 to NIBCO personnel, specifically Jarrod Brigham within</p>
Page 243	Page 245
<p>1 the tubing wall." So am I correct in understanding that 2 NIBCO would test every inch of its tubing? 3 A Yeah. Yeah. We would -- yes, we did. 4 Q Okay. And the test that would apply to every 5 inch of the tubing would be what? 6 A An air test. 7 Q An air test. Blowing air into the -- 8 A Yes. 9 Q -- tube -- 10 A Uh-huh. 11 Q -- and then seeing if any air comes out? 12 A Correct. 13 Q And that would help determine whether or not 14 the tubing shipped out of the plant had any hole in it 15 at that moment, right? 16 A Correct. 17 Q Okay. It wouldn't necessarily determine 18 whether or not -- once the tubing's installed, whether 19 or not it had some latent defect that could cause it to 20 leak? 21 MR. KUHLMAN: Object to form. 22 Q Right? 23 A Well, it would evaluate the condition of the 24 tubing when it left the plant. 25 Q Okay. If you could take a look at what we've</p>	<p>1 the e-mail, and he says, "I can e-mail you pictures if 2 you need them, but I'm sure you know what I'm talking 3 about due to what I have read about this problem on the 4 Internet. From what I can tell, this is a major problem 5 throughout the United States with your product. Please 6 let me know what my next step needs to be." So do you 7 have an understanding whether anybody at NIBCO took a 8 look at the Internet to see what the level of complaints 9 about NIBCO products were? 10 MR. KUHLMAN: Object to form. 11 A Well, I will tell you this. You know, almost 12 every PEX company's been sued for something. And there 13 is a lot of stuff on the Internet, but you really don't 14 know who the manufacturer is a lot of the times, and it 15 could be multiple manufacturers. So I don't know what 16 he's referring to here, you know, specifically. But I 17 don't -- I don't think -- I don't believe there's 18 anything on the Internet stating that we had problems 19 all over the United States. I never saw that. 20 Q Now, you mentioned that you understood that 21 other PEX manufacturers had also been sued. Is it your 22 understanding they were sued due to the PEX piping? 23 A I think -- I think -- well, many have been 24 sued on fittings, but I -- I think I know of at least 25 one or two other lawsuits involving tubing.</p>

Page 246

Page 248

1 Q And concerning which companies?

2 A I don't remember which ones, but I know that
3 there's a lot of -- there's been a lot of litigation out
4 there.

5 Q Okay. And what conclusion do you draw from
6 that when you see other litigation relating to PEX
7 tubing?

8 A Just, you know, the things that I've seen, you
9 know, through the years. I know that Uponor was sued,
10 and Viega was sued, and Zurn was sued, so there's been a
11 lot of lawsuits.

12 Q Do you know if that was concerning the tubing
13 or the fittings?

14 A I -- well, I -- I really don't recall exactly
15 what -- you know, what it was. But I know that there
16 was someone that was sued because of the tubing, but I
17 can't remember who it is right now.

18 Q If I told you that my law firm had been
19 contacted by 900 different people who have said they had
20 leaks from a NIBCO tubing, would that in any way change
21 your view of whether or not the product has a problem?

22 MR. KUHLMAN: Object to form.

23 A Well, there again, some people -- you know,
24 most people don't even know whose PEX they have, so you
25 know, that does not mean much to me.

Page 247

1 Q Okay. If I told you, this is an
2 approximation, 900 people have represented to us that
3 they have NIBCO PEX tubing that leaks, does that in any
4 way change your view of whether or not there's a problem
5 with the product?

6 MR. KUHLMAN: Object to form.

7 A Look, we sell -- or I'm not part of NIBCO
8 anymore, but, you know, we would sell anywhere from 50
9 to 75 million feet a year, and that's a lot, and I don't
10 -- I know nothing about these 900 cases. I don't know
11 if they're truly NIBCO complaints or not.

12 Q Let's say they -- it turned out that they were
13 bona fide complaints. They were NIBCO product and there
14 was a common leak. Would that give you some pause that
15 there may be something wrong with the pipe?

16 MR. KUHLMAN: Object to form.

17 A We've -- you know, we have talked about the
18 high water pressure conditions throughout the country,
19 so you know, I don't know. That number, it's abstract
20 to me right now.

21 Q Okay. Well, that's an interesting point you
22 raised. Once NIBCO became aware that there's a concern
23 or NIBCO has a concern that high water pressure causes
24 failure in the pipe, were there any specific actions
25 that NIBCO took to help ameliorate that perceived

1 problem?

2 A Well, we -- we changed our installation manual
3 and put, you know, new guidelines in.

4 Q Okay. And when did that happen?

5 A You know, in the post-2010 timeframe is when
6 we, you know, started doing that.

7 Q Okay. So people prior to 2010 wouldn't have
8 had any notice then that NIBCO's view is that high
9 pressure water can cause a pipe to fail prematurely --

10 MR. KUHLMAN: Object to form.

11 Q -- right?

12 A Well, I don't -- I don't know. You know, we
13 do know that there were a lot of houses installed
14 without pressure relief valves, a lot of houses in the
15 country in -- where no expansion tanks were installed,
16 and we have evidence of municipalities warning, you
17 know, people about high water conditions in their house
18 and making sure pressure relief valves were in working
19 order, so you know, it doesn't -- it doesn't affect how
20 -- I know what the quality of our product was, so it
21 doesn't affect how I view that.

22 Q Besides your reference to San Antonio
23 apparently disclosing that it might have high water
24 pressure, were there other localities that have warned
25 their customers that they have high water pressure?

Page 249

1 A You know, I -- I don't know if I know of any
2 others, but I know that there's some municipalities that
3 should.

4 Q You mean, that you know that they have high
5 water pressure?

6 A Yes.

7 Q And you know that from what source?

8 A Just from, you know, evaluating houses, you
9 know, in that area.

10 Q Is there any --

11 A It doesn't mean that they all are that way,
12 but...

13 Q Is there any source that somebody can go to
14 and would show what the -- what pressures are on various
15 municipalities across the United States?

16 A No. It's really the responsibility of the
17 homeowner to check their water pressure.

18 Q Okay. If you could look at what we've marked
19 as Meadow 62. This is another e-mail chain that you
20 were vetted in. This one encompasses Bates numbers
21 Meadows 135068 through 135070. And the topic is
22 "Talking Points," and then I ask you to take a look at
23 this. Tell me if you recognize this document and, if
24 so, what it concerns.

25 (MEADOW EXHIBIT 62 MARKED FOR IDENTIFICATION)

Page 250

Page 252

1 A Yes, I recognize this.
2 Q Okay. And what does this concern?
3 A Well, our product manager, Tom Coe, wrote an
4 e-mail with some talking points, where he's talking
5 about our new formulation, which was going to be
6 launched soon, and just some things were, you know,
7 happening that -- that were, you know, affecting, you
8 know, PEX tubing applications.
9 Q And the top e-mail, Kathleen Emery is sending
10 to Doug at MRK Sales a copy of the e-mail. Now, who is
11 Doug at MRK Sales?
12 A Doug, we had some manufacturer's reps that
13 sold for us, and MRK sold for us in Texas.
14 Q They were a wholesaler?
15 A No, they were a manufacturer's rep. We paid
16 them a commission to sell for us, yes.
17 Q And she says in her e-mail, "I just wanted you
18 to know that there is a team working on this 1006 issue.
19 We'll get through this," she says, in bold or in
20 capitals, "I promise you," and she puts four exclamation
21 points. What's your understanding of what she was
22 referring to where she says "the 1006 issue," when she's
23 writing in July of 2012?
24 A I don't know. I'm assuming that she had an
25 issue with -- or Doug maybe had an issue with a customer

Page 251

1 who's asking some questions about 1006. And, you know,
2 as I mentioned earlier, you know, there was some
3 pressure on us to get a higher recirc product, so I'm
4 only speculating what she would be commenting about
5 here.
6 MR. KUHLMAN: Could we go off the record for
7 just a second?
8 MR. DEUTSCH: Sure.
9 (OFF THE RECORD)
10 BY MR. DEUTSCH:
11 Q And if you could take a look at this Meadow
12 Exhibit 11, which was an e-mail chain, again. This
13 time, at the top, you received an e-mail from Thomas Coe
14 dated September 5, 2012. It's an e-mail chain
15 concerning "effect of chlorine concentration upon PEX
16 ESTMF2023 extrapolating times to failure. So will you
17 take a look at this and tell me if you recognize this
18 document that we received and what it concerns?
19 Admittedly, there's a number of blank pages in this
20 exhibit. That's just the way it was produced by NIBCO
21 in their production.
22 A Okay. I think I'm ready.
23 Q Okay. You recognize this e-mail chain that
24 you were involved in?
25 A Well, not exactly -- well, a little, a little.

1 I'm trying to remember what the issue was here.
2 Q Okay. Now, on the first page is an e-mail
3 from you to various people, Wednesday, November 5, 2012,
4 you state, "Following is a draft of the technical report
5 that I asked Earl to put together to help quell the 5006
6 issue concern." What is that about?
7 A I'm not sure. What I don't understand is that
8 if you look at pages 32042 and 32043, this is not
9 written by Earl. There must have been an attachment
10 that was Earl's, and this is -- this looks like this is
11 something from this Dr. Frank Volgstadt is what I'm
12 thinking. And then I had asked Earl to write something
13 to -- because we may have been getting some questions
14 about this -- this other article.
15 Q I'm sorry, the other article being what?
16 A I mean, at the top of 32042, I guess I don't
17 recognize this as something that Earl would write, and
18 I'm thinking that maybe what he wrote was an -- had an -
19 - was an attachment. And, in fact, there's attachment
20 here at the top. I don't know. I just don't -- I guess
21 I don't remember much about this, to tell you the truth,
22 Larry.
23 Q At the top of the third page of 32043 it
24 reads, which appears to be an e-mail from Earl to you
25 where he says, "A review of domestic municipal order

Page 253

1 suppliers finds that a majority add chlorine at levels
2 of 1.0 to 1.5 parts per million in a treatment plant.
3 And average from municipal water suppliers average
4 chlorine concentration at the treatment plant is 1.1
5 parts per million." Then it goes down to say, "One
6 study suggests that the chlorine levels at 1.3 parts per
7 million at the treatment plant chlorine levels will be
8 between .1 and .5 part per million of the majority of
9 the residents who are served by that plant." So is that
10 section relative to concentrations producing its
11 NIBCO --
12 A Yeah. Well, I think --
13 MR. KUHLMAN: Object to form.
14 A Well, I think what he's trying to say here is
15 that the chlorine used in the actual testing of PEX
16 tubing is much higher than what the levels of chlorine
17 you would see in an actual application, I guess is what
18 he's trying to say.
19 Q Well, at the low levels that's described in
20 here, when it's in the residences, would you agree that
21 normally chlorine wouldn't be part of what you might
22 define as aggressive water?
23 MR. KUHLMAN: Object to form.
24 A Well, I -- I don't know. We've been talking a
25 lot about aggressive water. I don't know exactly what

<p style="text-align: right;">Page 254</p> <p>1 that means, other -- more the effect, and I think we 2 talk about that more in terms of metal fittings. But I 3 think what Earl was -- was trying to do here is, you 4 know, talk about PEX in general, that it's tested at 5 very high chlorine levels. The testing that we do is -- 6 is much more stringent than anything that a -- you know, 7 a consumer would see in their home. So I think that's 8 what he's trying to get across here. 9 Q And then would it also be true of temperatures 10 and pressures for the -- 11 A Right. 12 Q -- testing that you put on the pipe, right? So 13 the pipe should be able to withstand higher pressures 14 and temperatures than actually -- 15 A Well, the testing is -- 16 MR. KUHLMAN: Object to form. Let's try to 17 keep the question, answer. 18 A I'm sorry. The tests are tests to failure, so 19 there's no relationship between what you're testing it 20 to and -- and what it can withstand, because the tests 21 are -- you're testing it until it fails. 22 Q Okay. 23 A So the testing's going to require very high. 24 Q Well, would you agree, then, when you look at 25 NIBCO piping, it has parameters that are printed on the</p>	<p style="text-align: right;">Page 256</p> <p>1 rating. If you could take a look at this and tell me if 2 you recognize this document and, if so, what it 3 concerns? 4 A Okay. 5 Q Okay. Do you recognize this e-mail that -- 6 A Yes. 7 Q -- NIBCO produced? 8 A Yeah, I remember this. 9 Q And what does this concern? 10 A Well, at the time, Viega and Zurn, they were 11 trying to tell customers that 5006 tubing had -- was 12 better than 3 or 1, and they were using this, you know, 13 to get people to switch from using our product to 14 theirs, and so this was a response to -- to some of 15 those actions by our competitors. 16 Q Did NIBCO ever consider legal action for the 17 way you're characterizing -- as Viega and Zurn 18 exaggerating the distinction between the products? 19 A No. 20 Q This is 63. 21 (MEADOW EXHIBIT 63 MARKED FOR IDENTIFICATION) 22 A Thank you. 23 Q So if you can take a look at what we've marked 24 as Meadow 63. It's a one-page document with Meadows 25 Bates number 112090. It's an October 24, 2012 letter on</p>
<p style="text-align: right;">Page 255</p> <p>1 piping, right? It has temperature and pressure -- 2 A Yes. 3 Q -- limits, right? But you would agree that 4 the pipe should be able to perform even above that level 5 based upon the kind of safety factor you build into the 6 pipe, right? 7 A No. 8 MR. KUHLMAN: Object to form. 9 Q No? You're saying if the pipe reads 180 10 degrees, 100 pounds of water pressure, if you go 185 11 degrees and 105 pounds per square inch of pressure, you 12 think that the pipe would fail? 13 A I think what I said in some previous 14 statements was that it could withstand that pressure and 15 temperature combination short-term. But that if you 16 expose tubing to that over time, it would shorten the 17 life of the tubing. It wouldn't have immediate failure, 18 but it would shorten the life of the tubing. It 19 wouldn't last 50 years. 20 Q It wouldn't last 50 years? 21 A Yeah, that's what I -- that's what I -- 22 Q All right. Let's take a look at what we've 23 previously marked as Meadow Exhibit 12. And this is 24 another e-mail chain with you and, at the top, Thomas 25 Coe sent you an e-mail, and then his concern's chlorine</p>	<p style="text-align: right;">Page 257</p> <p>1 NIBCO letterhead addressed to whom it may concern, 2 signed by John McActee, senior technical services 3 advisor. Have you ever seen this document before? 4 A Yes. 5 Q Okay. Were you involved in approving this 6 letter to go out? 7 A I think I may have been involved in some of 8 the earlier drafts, not this one. 9 Q Okay. And what was the purpose of this 10 letter? 11 A Well, this is a letter that was sent if 12 someone sent us a claim and it was for tubing or 13 fittings or anything that was manufactured and sold by 14 Consolidated Plumbing Industries. It's just basically 15 stating that that product was now produced by NIBCO. 16 Q Okay. And I see in the first sentence of the 17 letter is says, "NIBCO purchased substantially all the 18 assets of the Warren Group." What assets of the Warren 19 Group didn't NIBCO buy? 20 A I don't know. I don't know the answer to 21 that. 22 Q At a minimum, it acquired substantially all of 23 the assets according to this letter, right? 24 A Yes. 25 Q Okay. And so this letter's being sent out in</p>

<p style="text-align: right;">Page 258</p> <p>1 2012 after NIBCO's acquisition of CPI or its assets as 2 of 2006. So six years after the acquisition, what was 3 the remedy of a CPI owner of a CPI piece of tubing that 4 didn't work? What -- where could they get some relief 5 or satisfaction of a problem with their piping? 6 A Well, we had another letter that we would give 7 to people to -- that we had information on the Warren 8 Group's insurance carrier, and claims could be submitted 9 to them. 10 Q Okay. And that insurance policy accepted 11 claims from 2006 until what time period? 12 A I don't know. I don't know when it -- I'm 13 thinking at some point it ended, but I don't know 14 exactly when. 15 Q Okay. Now, do you have -- who determined that 16 NIBCO had no accountability for the prior CPI-installed 17 piping after NIBCO acquired CPI or CPI's assets, as you 18 would say? 19 A Well, that was a legal determination, and I 20 don't -- to tell you the truth, I don't know exactly 21 who, you know, made that decision. 22 Q Okay. Who communicated that to you? 23 A I don't recall. I mean, it -- it's, you know, 24 we had been -- that had been our position really since 25 the beginning of the acquisition of the assets, that we</p>	<p style="text-align: right;">Page 260</p> <p>1 product project, we have a tollgate process that we go 2 through. And the Tollgate 5 is -- I think it's 90 days 3 after a product has been launched, and we just do a 4 review to see if there's been any learnings or any 5 insights into how the project went. And so that's why I 6 sent this e-mail to David. 7 Q Okay. One of the aspects here is how are 8 sales going of the new product; is that right? 9 A Uh-huh. 10 Q Now, did NIBCO routinely measure what the 11 level of inventory of its distributors was on a regular 12 basis? By distributors, I mean the wholesalers, Sunbelt 13 Marketing, other -- 14 A Their inventory? 15 Q Their -- 16 A The inventory of wholesale -- 17 Q Your, NIBCO's -- 18 A No. 19 Q Did it evaluate how fast something is selling, 20 the end-user? 21 A No. All we had was the sales information of 22 what we sold to them directly. 23 Q So if you can take a look at what's now been 24 marked Meadow 64, encompasses a two-page document with 25 Bates numbers Meadows 32749 through 32750. It's an e-</p>
<p style="text-align: right;">Page 259</p> <p>1 didn't -- that we did not, you know, purchase the 2 liabilities of the company, and so it was a consistent 3 policy that, you know, we did not recognize claims for 4 CPI product. 5 Q Do you know -- do you have any idea how many 6 CPI claims came into NIBCO that NIBCO rejected as being 7 CPI claims and not NIBCO's responsibility? 8 A I -- I don't know what the exact number was. 9 Q Do you know if it's more than 100? 10 A I'd be very surprised if it's more than 100. 11 Q Previously marked. 12 A Thank you. 13 Q If you could take a look at what's been 14 previously marked as Exhibit 33 in the Meadow case. This 15 is an e-mail chain where you're the sender of the top e- 16 mail. It's from March 21, 2103 e-mail you're sending 17 with the subject "Tollgate 5 for the PEXc reformulation 18 project." So if you could take a look at this and tell 19 me if you recognize this e-mail you sent and what it 20 concerns? 21 A Okay. 22 Q Okay. Do you recognize it? 23 A Yes. 24 Q Okay. And why did you send this e-mail? 25 A David Bobo, any time that we have a new</p>	<p style="text-align: right;">Page 261</p> <p>1 mail chain with the top being a e-mail from Thomas Coe 2 to you dated June 25, 2013. Tell me if you recognize 3 this e-mail and what it concerns. 4 (MEADOW EXHIBIT 64 MARKED FOR IDENTIFICATION) 5 A Okay. 6 Q Okay. And what is -- do you remember getting 7 this e-mail? 8 A Yeah, I remember this. 9 Q Okay. And what does it concern? 10 A Well, at the end of this chain -- or at the 11 beginning of the chain, rather, Matt Dennis is the 12 senior buyer at Menards, and he was inquiring about 5306 13 tubing and if he can get it from NIBCO. And so this -- 14 Travis Malnar is -- we have retail manufacturer's reps 15 as well, who sell and get a commission from us. This 16 Travis helps us sell to Menards stores, and Tom had put 17 together this -- had put together this draft of a 18 response to Travis' question. 19 Q And he is raising an issue of your competitors 20 are using or had created a product that had a 5 rating 21 for chlorine resistance, -- 22 A Yeah. 23 Q -- right? 24 A Yeah, probably what happened is a customer 25 came in and said, "Hey, do you have 5306," and then so</p>

Page 262

Page 264

1 the buyer at Menards says, "Hey, you know, do you have
2 this?" And so this is our response.

3 Q Okay.

4 A Yeah.

5 Q And that was Menard's making face at the time
6 as the competitors had a chlorine rating of 5, whereas
7 NIBCO's product was 3, right, so they could lose those
8 accounts, right?

9 A Yeah, yeah. Everyone thinks 5 is better than
10 3. But they're really -- it's not a ranking. It's --
11 it's different standards for different products.

12 Q But a 5 is a more chlorine-resistant product,
13 right?

14 MR. KUHLMAN: Object to form.

15 A It depends, you know. It depends.

16 Q It depends on what?

17 A Well, it's like we talked about earlier. We
18 felt like, you know, the testing, there are some issues,
19 you know with the testing and, you know, our product is
20 well above all the minimum standards there for, you
21 know, domestic plumbing systems, so it's -- it looks
22 like a good, better, best, but it's a little more --
23 it's more complicated than that.

24 Q If you can take a look at what we've marked as
25 Meadow 65. This is a one-page document. Bates number

1 A No, I have nothing more to add.

2 Q Okay. It could have been interesting. Anyway,
3 at the top of this Meadow 65, this is personal archive,
4 Thomas Coe.

5 A Yes.

6 Q What is that?

7 A That's the first I've ever seen it. I don't
8 know. I don't know what that means.

9 Q Okay. Did you have a personal archive at
10 NIBCO?

11 A No.

12 Q No? You never had a document that -- with
13 your name on it that showed that?

14 A No. Uh-uh. No, I don't know what that's
15 about. He may have established a folder to put -- to
16 archive things.

17 Q Okay. And if you can take a look at what
18 we've marked as Meadow 66, which is a document
19 encompassing Bates numbers Meadows 62269 through 62271.
20 It's a document that says, "Lebanon Facility Standard
21 Operating Procedures." And then it says, "Customer
22 Complaint Investigation Form." Do you recognize this
23 document?

24 (MEADOW EXHIBIT 66 MARKED FOR IDENTIFICATION)

25 A Yeah, I think I saw this.

Page 263

Page 265

1 Meadows 125460. You're in an e-mail chain here, and it
2 concerns the sure -- San Antonio subdivision dated July
3 12, 2013. Do you recognize this document and what it
4 concerns?

5 (MEADOW EXHIBIT 65 MARKED FOR IDENTIFICATION)

6 A Yeah, this is -- yeah, I recognize this.

7 Q Okay. Do you remember getting it, the e-mail?

8 A Yeah, I do now.

9 Q Okay. And what does this concern?

10 A This was Tom Coe had investigated some of the
11 houses in San Antonio where Christianson had some leaks,
12 PEX leaks. And so this was just his -- a quick e-mail
13 that he sent to me with his initial findings.

14 Q Okay. And then he says in his e-mail to you,
15 "I think we can keep this customer if we do this right."
16 And that customer was Christianson, right?

17 A Yes.

18 Q Okay. And then what happened with
19 Christianson?

20 A Well, they stopped buying it from us. I don't
21 know exactly why. Maybe he didn't do a good enough job
22 there.

23 Q By the way --

24 A Even --

25 Q Sorry. Go ahead.

1 Q And a customer complaint investigation form,
2 is that part of the PER system?

3 A No, this is when tubing was coming to Lebanon
4 for evaluation, this is -- this is what Debbie used to
5 document her findings.

6 Q Okay. And was this a newer system that she
7 developed at sometime after she became part of NIBCO?

8 A I don't know when this was developed, but I --
9 I know that as long as I was with the business, she was
10 using a form, you know, like this.

11 Q If you could take a look at what's been marked
12 as Meadow 67, which encompasses Meadows Bates numbers
13 135088 through 135089. Take a look at this and tell me
14 if you've seen this before.

15 (MEADOW EXHIBIT 67 MARKED FOR IDENTIFICATION)

16 A Do you know who the author of this is?

17 Q That was my next question. I would add that
18 it has additional Bates stamp of MRK73.

19 A Okay.

20 Q Do you know what MRK is?

21 A Yeah, it's -- it was our rep, Doug Reem, I
22 believe was his name.

23 Q And it looks like you, at a prior deposition
24 in 2015, you were asked about this document?

25 A Yeah, yeah.

<p style="text-align: right;">Page 266</p> <p>1 Q So you've seen this, at least in your 2 deposition, last time? 3 A Yeah, yeah. 4 Q Had you seen it before your deposition? 5 A I don't think so. I'm not sure. Unless he 6 sent it to me. I don't think he ever did, yeah. 7 Q Okay. So this is somebody's writing as to 8 NIBCO's history with Christianson Plumbing and NIBCO. 9 Did you take issue with any of the factual 10 representations in this Meadow 67? 11 MR. KUHLMAN: Object to form. 12 A Well, yeah, I take issue with a lot of it. 13 Q What do you disagree with what the author of 14 this document wrote about the dispute between 15 Christianson and NIBCO? 16 MR. KUHLMAN: Same objection. 17 A Well, our Doug Calvert converted the account 18 and Doug Green did not. You know, with the meeting with 19 Pulte, you know, I just shared the information that we 20 -- that we had. I wasn't trying to blame anything. I 21 was just trying to enlighten them, and -- so those are 22 the two main things. 23 MR. DEUTSCH: Okay. Let's take a two-minute 24 break and see if we're done, or at least we're done 25 on our side.</p>	<p style="text-align: right;">Page 268</p> <p>1 produced. It probably was only sent to one -- I don't 2 know who we sent it to, but probably just the one. But 3 it was just something that we kept in our back pocket if 4 -- if we needed it to address, you know, questions about 5 the differences between our warranty and a competitor's 6 warranty. 7 Q And would that have gone to any homeowners? 8 A No. 9 Q Okay. You were asked some questions about 10 locations in the United States that may have high water 11 pressure, and one of the locations identified was the 12 Southeast of the United States. And my 13 question is: Are you saying that generally the Southeast 14 United States has high water pressure? 15 A I think I was saying is that when we saw a 16 high water pressure conditions, it was usually in the 17 Southeast. It doesn't mean that it's across all the 18 Southeast, but, you know, we've already talked about 19 Charlotte and San Antonio. It's not a broad statement 20 per se, because, like Christianson, they bought tubing 21 from us, installed three times as much in Austin as in 22 San Antonio, same product, but there were no issues in 23 Austin. So we -- we have had no -- found no evidence of 24 pressure issues in -- in other parts of the country, 25 like the Midwest, for example, where we probably sold</p>
<p style="text-align: right;">Page 267</p> <p>1 (OFF THE RECORD) 2 CROSS EXAMINATION 3 BY MR. KUHLMAN: 4 Q Mr. Doering, my name is Kevin Kuhlman, and I 5 represent NIBCO in this case, and I have just a couple 6 of quick questions for you, and then we'll wrap it up. 7 It's around 7:15. I'd like to direct your attention to 8 a document that was marked as Exhibit 6, and I'll just 9 hand you -- 10 A Okay. 11 Q -- my copy here. Do you remember answering a 12 few questions about this document? 13 A Yes. 14 Q And this document describes -- well, tell me, 15 what is this document again? 16 A Their -- one of our competitors had changed 17 their product warranty to include things like, we cover 18 damage to carpeting, furniture, drywall, you know. And 19 so this letter was a response to -- to that warranty 20 claim that a competitor had made. 21 Q And was this letter intended for broad 22 distribution, or was this to address a specific issue 23 that came up somewhere? 24 A I think this came up with, like, one or two 25 customers, and so this is just a letter that we</p>	<p style="text-align: right;">Page 269</p> <p>1 more PEX in the Midwest than anyplace else in the United 2 States. So just a few pockets in the Southeast is where 3 these issues occurred. 4 Q You were asked some questions about fitting 5 failures, and I'd like to talk to you first about the 6 Linx fitting failures that were discussed, and you were 7 asked some questions about a shipment of fittings where 8 the supplier used the wrong alloy. Do you remember 9 answering some questions about that? 10 A Yes. 11 Q Okay. And with respect to those fittings, 12 were the customers who complained about problems with 13 those fittings made whole, essentially? 14 A Yes. 15 Q And to your knowledge, have all claims that 16 were submitted on those Linx claims that were -- that 17 had the wrong alloy issue, were those all -- have all 18 those complaints been taken care of, to the best of your 19 knowledge? 20 A Well, when I left, there were still some 21 claims outstanding, but I know that when I left, we were 22 actively working, you know, to complete those claims. 23 Q Okay. With respect to other fittings sold by 24 NIBCO that were not part of that specific issue with the 25 wrong alloy, how would you describe the number of</p>

Page 270	Page 272
<p>1 failures that NIBCO has seen in those fittings, the 2 entire other universe of fittings? 3 A Well, I'd say that -- very few. I'd say less 4 than -- I saw less than a handful that I was aware of of 5 fitting failures. 6 MR. KUHLMAN: I don't have anything else. We'll 7 reserve the rest for trial. 8 MR. DEUTSCH: Okay. I just want to ask one 9 follow-up question. 10 RE-EXAMINATION 11 BY MR. DEUTSCH: 12 Q The Linx claims that you satisfied, did you -- 13 did NIBCO ever attempt to figure out what were the 14 number of fittings sold as compared to the claims that 15 came in to determine whether or not 100 percent of the 16 defective Linx fittings resulted in a payment to the 17 user of the Linx fitting? 18 A We knew how many we had shipped, and we knew 19 how many we had gotten back, and we knew how many were 20 still out there. Now, not all of -- in that number that 21 were shipped, not all of them failed, you know. Some 22 failed, some did not. And so -- and as we reported 23 earlier, the failures tended to happen within a few 24 months, which is probably a good thing. So there, I -- 25 we don't know those exact numbers, but we do know that</p>	<p>1 Q But you didn't have any way to determine which 2 ones were the good ones and the bad ones, right, in that 3 batch? 4 MR. KUHLMAN: Object to form. 5 A No. If fittings were returned, we just 6 assumed they were bad, and then we took care of the 7 claim 8 Q Okay. But theoretically at least, some of the 9 fittings that got sold out that have not appeared as 10 claims yet could, in the future, result in failure that 11 results in a claim, no? 12 A Could, but I would say it's unlikely. 13 Q Okay. 14 MR. DEUTSCH: No further questions. 15 MR. KUHLMAN: Well, I have one more. 16 RECROSS EXAMINATION 17 BY MR. KUHLMAN: 18 Q With respect to Exhibit 6, the letter that we 19 talked about just a moment ago. 20 A Yes. 21 Q Was that an attempt by you to alter the 22 warranty in some way, or was that more your attempt to 23 articulate that NIBCO was going to stand by its product? 24 A Yeah. 25 Q And that NIBCO had a goodwill process in</p>
Page 271	Page 273
<p>1 there's fittings that the entire batch that was shipped 2 was not defective. But we, you know, attempted to get 3 all those back from, you know, within that certain 4 range. 5 Q When you say they -- the whole batch was not 6 defective, how do you square that with saying that they 7 used the wrong alloy -- alloy or the fitting? 8 A Well, you know, again, I'm not the technical 9 expert on this. The alloy itself wasn't the problem, 10 but it's the processing of the alloy. So it would be 11 like if you changed a cake recipe, and you didn't adjust 12 the oven temperature or something like that. So the -- 13 I'm only guessing here, but I'm surmising that there 14 probably was some variability window there where, you 15 know, the processing, you know, was correct with that, 16 or -- and there was some that, you know, clearly weren't 17 formed properly, but some were. 18 Q And you're talking about the batch that you 19 received that you were concerned about? 20 A Yes. 21 Q That you defined as ones that you would accept 22 those claims on? 23 A Yes. 24 Q Is that right? 25 A Yes.</p>	<p>1 place? 2 A Yeah. I mean, I wrote that letter in 3 conjunction with our legal people, and, you know, that 4 letter was -- what we were trying to achieve is saying, 5 you know, our -- you know, you are covered under our 6 warranty, you know, you have a redress without us having 7 to spell out every single thing in the house that might 8 get damaged. 9 Q And NIBCO had a goodwill policy as well? 10 A Oh, yes, of course. 11 Q Okay. 12 MR. KUHLMAN: Okay. I'm good. I think that's 13 it for now. 14 (DEPOSITION CONCLUDED AT 7:25 P.M.) 15 16 17 18 19 20 21 22 23 24 25</p>

CERTIFICATE OF REPORTER
COMMONWEALTH OF KENTUCKY AT LARGE

I do hereby certify that the witness in the foregoing transcript was taken on the date, and at the time and place set out on the Title page hereof by me after first being duly sworn to testify the truth, the whole truth, and nothing but the truth; and that the said matter was recorded by me and then reduced to typewritten form under my direction, and constitutes a true record of the transcript as taken, all to the best of my skills and ability. I certify that I am not a relative or employee of either counsel, and that I am in no way interested financially, directly or indirectly, in this action.

CRYSTAL HAVENS,
COURT REPORTER / NOTARY
COMMISSION EXPIRES ON: 01/19/2020
SUBMITTED ON: 01/30/2017

A				
ability 60:24 61:9 68:11 116:23 159:23 274:12	190:5	address 93:1,20 196:16 211:25 267:22 268:4	189:3 200:13 240:24 241:3,6 253:22,25	218:18 221:12 222:10 269:8,17 269:25 271:7,9,10
able 38:20 57:6 89:15 98:12 103:12 106:14 113:12,13,24 119:16 143:22,22 158:3 204:22 206:19 207:10 234:17 236:4 254:13 255:4	acquired 36:20 37:16 73:4,6 74:20 85:23 121:17 144:10 146:4 163:17 189:23 190:1 226:23 257:22 258:17	addressed 152:25 154:20 257:1	aggressiveness 141:1 142:21 143:5,13 149:11	allplastic 206:13
absolutely 127:19	acquiring 18:3 36:24	addresses 209:4	ago 8:22 135:15 177:15 192:17 230:7 233:14,24 272:19	ally 271:7
abstract 247:19	acquisition 28:21 28:25 29:1,8 33:2 33:8 37:20 38:6 38:13 39:5,11,19 39:22 40:15,21 41:3,9,17,21 42:6 42:14 162:12,16 165:16 180:8 189:24 197:5 258:1,2,25	addressing 61:10 244:15	agree 237:16,23 253:20 254:24 255:3	alter 272:21
accept 69:6,11 107:6,8 271:21	action 1:2 125:19 184:6 200:19 256:16 274:14	adhere 98:4	agreed 6:8 219:7	ameliorate 247:25
acceptable 64:5	actions 174:22 194:20 247:24 256:15	adjust 271:11	ahead 43:16 63:21 157:3 217:16 222:14 263:25	america 242:24
accepted 105:15,17 258:10	actively 269:22	adjustment 182:1 adjustments 182:10	ahold 193:2 216:19 216:20	amount 44:22 56:4 193:4 218:3 220:16 225:25 237:13
access 206:18	actual 112:3 253:15 253:17	administration 11:18	air 243:6,7,7,11	amounts 218:2
accessories 18:9	ad 16:3	administrative 171:24	alabama 159:13 160:2 208:10 210:21 212:1,5,9 212:12,22 225:21 233:10	analysis 129:18
account 219:8,14 219:18 225:14 266:17	add 77:24 134:14 140:5 152:24 194:19 253:1 264:1 265:17	admittedly 251:19	alignment 20:20	analysts 129:16,25
accountability 258:16	added 27:20,21 78:2 197:5	adopt 147:17,20 187:9	alloy 152:18,18	analyzes 138:17
accounting 39:13 169:15 182:1,10	adding 48:19 49:20 78:25 117:11	adopts 147:16	allegation 8:19 227:5	analyzing 122:14
accounts 191:2 211:4 224:1 262:8	addition 134:2	advantage 31:15	alan 1:3 2:3	ancillary 18:7 177:2 179:13
accuracy 53:19	additional 60:20 68:9,24 69:1,2 77:24 78:2,18 123:13 237:9 239:8 265:18	advice 154:19	alicia 79:24 80:2,8	angeles 201:17,24 202:5,9,11,19 206:6,16,22 207:9
accurate 26:1 48:15 60:12 108:23,25 117:4 155:12 167:19 171:12,16		advisor 257:3	allegations 8:16 9:8	anniston 208:10,18 209:25,25 211:8
ace 191:22,22		advocate 187:4	alleging 9:10,14	annual 196:24 219:23
achieve 126:23 132:6,15 198:14 241:19 273:4		affect 28:1 139:20 140:25 248:19,21	allow 100:6 111:21 116:6 151:14,24 154:12 198:15 230:8	answered 167:4 244:20
achievement 89:2		affirm 7:7	allowed 100:8 139:13	answering 267:11 269:9
achieving 89:1,13		afford 151:7 159:18	allows 147:10,11 150:22 151:5	answers 10:17 108:22 126:7
acidic 141:9		agencies 35:3 54:15 55:23 59:4 69:5 71:4 77:9,17	alloy 180:18 199:2 199:15,17 208:9 214:2,13,16 215:3 215:22 216:18	anticipated 182:2
acquire 21:14		agency 54:8,13 57:3,5,9 68:24 91:21		antonio 146:10,13 146:14 158:18 248:22 263:2,11 268:19,22
		agenda 85:4		anybody 233:7 245:7
		agent 107:25,25 160:11,12 210:14 210:17 235:25		anymore 94:11 172:10 247:8
		agents 160:25		
		aggressive 141:3,7 141:11,17 142:24 142:25 143:23 144:2,3 146:11,12 149:4,5 188:22		

anyplace 269:1 anyway 90:13 264:2 ap 223:24,24 apart 177:11 201:19 apologize 162:16 apparent 103:11 apparently 217:7 239:21 248:23 appeal 46:19 appear 227:9 appearance 170:7 appearances 2:1 3:1 appeared 118:14 272:9 appears 65:8 165:2 167:11 171:11 189:6 207:18 224:14 252:24 applicable 33:18 35:8 57:6 103:13 103:25 188:7 207:4 application 100:22 143:13 161:20 200:10 253:17 applications 28:23 29:14 32:15 98:2 196:13 250:8 applied 185:15 apply 243:4 appreciable 115:6 appreciate 145:12 154:21 apprise 118:5 approach 68:22 approaches 132:15 appropriate 134:5 134:25 135:5 140:1 194:9 approval 156:22 198:10 199:5,8 201:9 202:6,17,19 205:25 206:6,15	206:22 207:9 217:25 approve 203:2 218:1 approved 63:22 137:25 154:16 175:17 182:21 202:13 217:20 approving 257:5 approximately 6:6 219:24 approximation 247:2 archive 264:3,9,16 area 12:4 20:22 52:3 56:6 62:22 100:8 122:8 141:13 144:8,14 146:10,10,13 149:6,10 158:18 159:12,14,16 160:9 161:10 162:4 208:14 211:15,16 212:5 213:19 216:20 225:17 232:14 233:3 237:15 241:8,9 249:9 areas 141:10,16 142:6 158:17,22 158:23 159:8,16 159:22 161:13,17 162:3 212:10 232:2,5,6,15,19 232:22,25 arent 25:20 26:21 54:14 242:18 arguably 194:7 arguing 90:14 arizona 203:21 arose 166:4 arrange 95:25 arrow 65:5 article 252:14,15 articulate 272:23 arts 12:7	ashley 24:17 asian 176:19 180:13 183:24 aside 40:5 46:7 58:16 78:23 84:3 98:24 113:23 173:22 asked 24:7 115:1 162:15 167:2 214:2 217:7 252:5 252:12 265:24 268:9 269:4,7 asking 7:18 36:1 66:7,10 88:14 93:15 108:7 186:19 193:19 206:7 223:9 237:9 251:1 aspect 20:14 82:9 211:21 aspects 51:9 241:22 260:7 aspired 28:12 assessing 236:13 assessment 117:4 assets 21:15 28:22 29:2,9 37:20 39:11 40:21 73:4 74:21 121:17 144:11 146:4 162:21 163:18 165:16 189:23 190:1 257:18,18 257:23 258:1,17 258:25 assigned 19:14 94:4 160:20 172:6 assignment 171:23 assistant 171:25,25 associate 157:21 160:19 163:1 associated 74:12 associates 237:15 associations 79:13 90:6 assume 11:8	assumed 117:21 190:16 272:6 assuming 250:24 assurances 184:10 asterisk 64:15 astm 57:6 62:21,23 104:7 138:9 atlanta 149:8,18 210:17 attached 207:17 235:13 attachment 252:9 252:19,19 attack 205:2 215:5 attacked 116:6 attacking 213:17 attempt 68:23 153:2 270:13 272:21,22 attempted 271:2 attend 83:16 84:5 attendance 83:11 84:3 attended 83:10,23 attending 36:9 attention 267:7 attorney 154:15 217:24 atypical 237:15 238:10 audience 150:10 audit 184:1 241:21 241:25 242:15 audited 242:9 auditors 80:10 81:3 august 164:20 165:8 austin 268:21,23 author 130:21 265:16 266:13 authored 125:2 authority 217:20 available 34:18,23 34:25 73:11 87:6 87:10 99:2 avenues 117:13	average 111:9 204:16 219:16 234:2 253:3,3 aware 35:13,21 36:3,6,16 41:11 43:12 58:25 76:16 80:8,13,19,21,23 81:1,14 91:13,16 91:16 92:20 119:3 141:17 144:2,3,4 159:9 161:3,4,8,9 161:12,17,19 165:24 180:25 186:22 187:1 188:13 193:8 194:18,22,25 205:13 212:5 247:22 270:4 awhile 44:20 axis 74:14,17 75:10
B				
b 126:22 207:14 bachelor 12:7 bachelors 12:1,2,10 12:12 back 12:13 13:5,21 25:24 48:20 49:21 50:22 63:5 74:4 74:23 86:12 95:3 97:14 109:6 125:2 129:11 131:20 133:12,13 139:16 169:4,6 180:23 182:19 186:6,11 189:10 193:3,4,6 197:25 208:20 209:14 221:16,25 224:23 229:25 268:3 270:19 271:3 backgrounds 72:4 backtrack 44:11 backup 78:15 bad 67:10 104:22 105:1 160:4,5				

162:5 214:21 272:2,6 badgero 220:4 221:13 bag 143:19 ballpark 38:17 39:22 banning 206:11 barbara 1:14 barbs 177:7 barrier 28:24 based 17:17 27:2,2 49:24 51:22 54:16 55:14 62:3 65:13 67:8 71:12 78:2 116:24 139:7 143:21 155:5,6 231:7,16 234:5 255:5 basically 31:16 36:9 41:14 49:9 94:25 119:20 126:12 153:1 154:18 165:12,21 183:22 202:4 208:14 209:8 257:14 basis 17:11 53:19 96:17 126:11 158:14 174:9 234:21 260:12 batch 271:1,5,18 272:3 bates 171:7 197:10 205:23 207:15,17 213:1 216:12 218:9 221:2 222:2 222:20 224:21 229:7 233:18 236:25 239:17 244:1 249:20 256:25 260:25 262:25 264:19 265:12,18 beam 28:1 75:2 becoming 134:2	219:5 beg 167:4 began 15:22,25 25:25 29:18 31:7 31:8 86:20 186:23 beginning 13:16 20:8 29:11 95:12 258:25 261:11 begins 60:15 64:3 68:3 behalf 1:4,16 2:3,6 2:15,17 3:3 166:25 227:22 behooves 70:19 believe 8:15 9:1,2 9:12,21,23,24 10:9 18:13,20 22:25 28:15 29:25 35:9,17 41:13 43:6 45:8,19,19 46:5 47:3 49:24 54:3 58:3 60:1 62:8 65:14 66:22 73:19 86:16 87:24 88:3 112:25 123:21 134:24 150:4 155:10 172:18 176:19 197:5 203:20 245:17 265:22 believed 17:19 139:25 belong 90:6 ben 185:25 bend 32:4,13 101:9 101:14 129:3 179:22 228:11,15 228:20 bending 101:6,8 111:13 benefits 178:11 bent 100:2,2 101:7 berger 2:19 best 101:23 102:1 122:5 126:13 133:20 157:18	158:6 166:5 167:1 216:24 262:22 269:18 274:11 better 31:16 46:7 46:13,16,20,22,23 47:8,18 67:12 75:19 88:15 98:11 98:12,15 109:7,25 111:11 113:19 114:7,21 115:3 121:3 125:24 145:18 149:22 202:12 230:3 234:16 256:12 262:9,22 beyond 70:16 101:7 204:18 228:20 big 38:4 54:25,25 57:23 61:16 173:17 192:7 202:2 209:7,8 211:4,16 226:4 bigger 152:21 179:3 biggest 225:24 bill 169:6 208:15 birth 7:22 bit 18:22 21:6 32:1 42:21 52:9 59:16 67:1,2 70:22 75:1 91:19 108:8 109:7 114:7 127:20 129:17,18 158:2 242:20 black 217:9 blame 266:20 blank 251:19 blasting 159:22 blessing 175:8 blowing 243:7 blue 49:13 bm 2:24 bobo 4:13 48:3,6,7 49:11 51:7,14 52:2 60:11,16 61:8 68:7,21 70:1	74:10 76:2 78:17 78:24 81:2,5,23 84:5 88:13 90:20 91:11 125:2,20 175:9 259:25 bobos 50:22 125:11 boiling 56:9 bold 154:2 250:19 bona 247:13 bonds 72:20 borgerding 172:25 173:9 born 7:23 boss 125:11 boston 211:15 bottom 63:25 65:4 66:11 154:1 171:9 172:11 198:19 217:12 223:23 224:2 233:12,18 235:15 242:22 bought 41:7 177:2 214:10 268:20 boulevard 3:6 boxes 226:18 boyd 1:3 2:4 brag 242:19 branch 208:10 209:10 210:1,1 brand 26:3 31:9 41:23 branding 40:22 42:3 brass 180:5,7 186:24 187:5,7,14 187:14,15,21,22 188:1,4,16 199:1 199:6,8 202:22,23 202:25 206:11 213:13 215:24 235:6,9 241:2,4 break 11:11,14 88:19 123:14 157:10 266:24 breaking 12:8 brian 224:3,3	brief 168:23 briefly 24:22 44:17 brigham 216:13 244:25 bring 20:21 21:18 84:17 brings 120:8 broad 240:8,10 267:21 268:19 broadcast 240:2,15 brought 8:24 81:5 90:12 211:25 buck 22:2 bucket 209:8 build 255:5 builders 144:12 193:17 194:13 building 73:6 226:23,24 buildings 179:19 built 144:5 202:10 bulk 198:10 bullet 75:24,24 88:25 bulletin 162:3 bunch 69:9 burst 33:24 148:22 204:24 205:5 business 11:18 17:16,20 19:15 20:21 21:19,22 24:12 46:4 82:25 83:4 84:1 85:10 85:24 86:3,5,6,12 109:2 117:10 121:1 144:18,19 168:20 170:23 171:3 173:24 174:1,4,7,11,13 174:20 176:2,4 183:6 187:1,7 190:2,21 191:3,16 191:22 196:10,16 196:22,25 197:6 219:20,21,24 241:23 265:9
---	--	--	--	---

businesses 170:24 170:25 busy 40:19 buy 30:11 210:17 257:19 buyer 261:12 262:1 buyers 223:11 buying 18:5,13 30:17 88:7 176:23 225:5,9,10 263:20 buysell 210:17	176:20 206:20 208:4 220:9,16 225:12 226:2,3 246:17 capable 54:5 capacity 37:4 119:4 capital 32:6 capitalized 154:2 capitals 250:20 car 148:24 care 51:8 84:24 142:3 156:19,20 157:3 160:25 165:18 183:12 184:8 208:17 210:2,7 211:2 269:18 272:6 careful 141:24 carolina 144:1 145:17 146:2 158:18 159:13,15 210:20 carpet 152:13 carpeting 152:6 267:18 carrier 165:18 182:5,15,24 216:23 217:18 258:8 case 1:14 8:14,16 8:20,23,24 9:8,10 10:4 25:5 27:20 78:18 94:8,9 95:1 102:20 111:17 116:21 120:22 148:18 166:8,24 194:19,19,20,22 194:23 195:10,13 195:15 204:3 211:7 213:18 214:18 217:3 218:6 221:13 227:10,14,19 228:25 235:1,10 236:23 237:18 239:9,11 241:3	244:2 259:14 267:5 casebycase 96:17 cases 67:5 98:8 99:25 100:4,25 101:18,21 102:21 103:4 115:16 117:22 121:14 142:15 189:19,20 247:10 catastrophic 101:3 148:19 catch 219:10 category 174:20 cause 95:7,14 100:16 101:11 102:3,18 103:10 103:23 104:1 105:9,21 106:14 106:16,24 107:3 108:9 114:9 115:22 118:18 120:1 128:3,6,12 148:11 185:2 233:8,15,25 243:19 248:9 caused 99:22 101:3 106:25 117:20 128:23 129:6 143:23 148:12 151:5,12 210:6 causes 27:17,24 99:24 109:10 113:20 117:5,15 118:12 247:23 causing 215:5 234:22 cautions 161:24 cc 197:10 ccd 164:20 ccing 107:21 cemented 226:14 central 160:24 225:18 ceo 169:24 219:7 certain 39:12 56:4	58:6 60:17 61:9 61:19 70:18,19 78:22 84:8 88:3 128:12 164:15 185:15 195:1 217:19,22 231:17 271:3 certainly 30:1 61:10 67:20 110:23 122:3 128:16 133:24 154:21 155:3 156:3 230:20 certificate 274:1 certification 52:23 55:14,22 56:5 57:15 58:7,8,13 58:20,22 60:24 62:10 70:24 71:22 76:12 77:2,16 84:8 85:2 91:21 91:23 105:2 138:24 238:6 241:15 certifications 34:14 56:14 64:1 89:15 certified 53:14 54:7 55:3,6 57:2,5,17 138:14 242:5 certifier 48:21 77:20 certify 49:25 58:3 274:4,12 chad 1:15 2:15 chain 5:9,11,12,14 5:15 107:17 164:14 199:20 203:9,10 204:6 205:21 213:2,8 218:10,24 220:25 221:1,3,10 222:3 229:8,15 230:1 236:24 237:4 238:20,22 244:3 244:11 249:19 251:12,14,23	255:24 259:15 261:1,10,11 263:1 challenges 174:18 174:19 chamber 133:5,5,7 chance 59:20 change 19:2,18 21:12 23:25 38:25 41:8 55:16 61:4 61:12 68:8,10 86:4 87:13,18 97:9 114:1 121:10 122:12,24 140:22 178:19 187:17,18 188:20 189:22 229:3 246:20 247:4 changed 40:21 85:15 145:13 146:5 248:2 267:16 271:11 changes 145:14 146:6,7 channels 87:7 characteristics 100:24 characterize 238:12 characterizing 256:17 charge 21:1 173:1 212:14 241:2 charlotte 159:14,15 161:10,14 162:7 232:14,19,22 233:3 268:19 chart 4:24,25 64:11 64:11 118:9 167:11 171:9 172:11 173:13 chase 166:11 cheap 178:3 236:10 check 75:5 103:1 111:20 117:7 143:19 153:10 219:9 223:24
---	--	--	---	--

C

c 2:19 126:22
cake 271:11
california 168:13
187:16,16,18
201:17,19,20
202:14,16 206:10
call 82:25 106:2
147:17 163:20
189:23
called 15:20 18:21
27:15,25 28:24
67:3 72:24 94:16
119:20 168:22
176:19,24,24
178:9 179:13
187:10 196:9
197:23 211:13
calls 162:2
calvert 266:17
canada 27:7
canadian 28:8
57:13 124:2
candidate 24:11
191:5
cant 27:7 28:8
34:11,11 41:25
45:11 66:9 78:7,7
79:7 94:5,5 101:4
102:4 106:11
114:8 117:17
124:15 125:18
127:3 145:7
159:18 160:1

224:4 230:22 235:2 249:17 checking 111:17 chemical 27:17,20 27:24 115:18 235:24 chemist 122:4 chicago 2:11 chief 18:21 168:7 173:19 177:3 china 178:3 183:25 chlorinated 137:25 146:25 147:2 161:25 chlorine 34:5,9 35:13,22 36:4,7 47:7,15 60:19 61:21 62:20 64:12 64:25 69:21 72:9 84:16 89:1,20 92:13 104:15 111:21,25 115:19 136:25 137:13 142:1,12,15,17 188:23 189:1,2,8 189:12,16,19,19 251:15 253:1,4,6 253:7,15,16,21 254:5 255:25 261:21 262:6 chlorineresistance 36:17 47:2,9 53:22 54:9 55:5 59:10 61:9 66:13 89:14 93:15 chlorineresistant 47:14 66:24 90:1 262:12 chose 155:20 chosen 28:14 106:15 chris 21:4,5,7,9,11 21:13 42:16 169:7 189:25 190:1 218:23 219:2,6 christianson 5:18	8:25 9:8 195:13 225:4,24 227:1 228:1 263:11,16 263:19 266:8,15 268:20 chubb 182:25 cincinnati 20:22 circulate 135:6 circulated 125:6,10 circulating 44:23 circumference 74:15,18 75:11 circumstances 105:13 107:9 116:21 218:7 cite 235:17 cities 159:18 city 3:7 201:9 206:6 civil 1:2 6:7 claim 67:20 114:13 154:5 217:5 218:21 219:10 221:15 222:15 223:8,21 224:12 227:7 239:13 257:12 267:20 272:7,11 claims 119:5 165:17,25 182:6,7 182:20,24 183:1,3 183:11 208:16 209:9 216:18,25 217:16 220:7,11 223:11 224:10 258:8,11 259:3,6 259:7 269:15,16 269:21,22 270:12 270:14 271:22 272:10 clamp 177:25 178:21 179:2 236:20 clamping 178:9 clamps 176:5,9,16 177:17 178:4,14 183:15 236:16	clarification 123:15 clarify 11:7 23:23 137:21 clark 90:18 91:10 197:10 205:22 class 166:25 194:20 cleaner 10:21 clear 10:22 11:2 188:15 clearly 271:16 clerical 172:4 client 176:22 223:1 close 109:22 123:5 142:10 180:3 206:10 207:9 closely 57:22 126:5 closer 20:23 98:11 clues 115:2 clyde 169:5 code 146:17 147:6 147:10,11,12,14 147:18,20,25,25 148:6 149:9 201:18 codes 90:19 147:16 192:25 206:7 coe 5:3 22:23 84:6 113:4 122:8 157:15 163:2 250:3 251:13 255:25 261:1 263:10 264:4 coil 172:21 cole 1:3,3 2:3,3 4:12 7:16 194:20 194:22,25 collaborative 130:4 130:11 colleague 167:2 color 64:6 colored 65:3 colors 60:18,20 64:17 139:14 columbus 173:6 column 65:3 com 2:13 3:10	196:20 combat 152:19 combination 101:1 255:15 come 23:17 51:14 72:8 74:23 76:25 82:2 96:10 177:11 183:3 188:11 202:22 225:7 229:25 234:20 236:5,15 comes 54:24 90:7 102:23 192:15 195:7 241:21 243:11 comfortable 127:16 coming 44:10 45:25 59:12 111:17 117:11 131:20 146:16 225:6 265:3 comment 114:8 142:20 218:15 commenting 251:4 commercial 70:21 commission 108:2 250:16 261:15 274:24 commit 187:9 committee 168:22 168:22 169:2,18 170:6,10 173:23 174:2 committees 90:8,10 common 111:12 224:16 247:14 commonly 187:8 commonwealth 274:2 communicate 106:15 155:20 192:19 communicated 95:20 258:22 communicates 105:18	communication 48:25 communications 35:1,2 108:16 communities 160:1 companies 21:14 21:15,16 26:18 27:2,3,5 54:21 57:10 134:10 196:14 242:4,17 246:1 company 12:15,18 15:6,19,20 18:20 20:22 27:6,7 28:8 30:17 39:2 52:15 72:24 73:5 129:24 168:4 173:7 176:18,24 183:11 190:4 195:23 196:8 210:9 211:13 217:11,13 259:2 companys 245:12 compare 30:23 87:11 compared 58:8 60:21 73:10 270:14 compensation 96:1 competed 192:2 competent 121:23 competitive 17:15 31:15,20 89:1,10 92:11,14 133:20 134:3 competitor 152:4 152:19 267:20 competitors 31:17 31:22 32:8 86:1 93:19 134:4 141:14 154:20 174:22 187:2 256:15 261:19 262:6 267:16 268:5 complained 185:1
---	---	---	---	---

269:12	concerned 63:8	181:11,12	contacted 32:20,22	controversy 52:13
complaining	77:3,12,21 142:2	configurations	193:9 195:22	61:25 66:23 67:17
244:17	271:19	181:9 214:23	219:7 246:19	89:21,24
complaint 10:3	concerning 201:9	confirm 49:12	contacting 163:13	conversion 87:13
95:21 119:17	221:2 244:5 246:1	234:25 239:9	193:16	convert 30:15
232:3 244:16	246:12 251:15	confirmation 207:3	contain 90:25	174:24
264:22 265:1	concerns 49:24	confirmed 138:25	118:8 140:4	converted 266:17
complaints 94:13	52:3,7,16,21	confirms 138:7	content 126:25	converting 187:13
98:15 119:2,5	61:23 69:24 73:21	conformance 88:15	127:18 141:9	coordination 40:22
212:6,20 245:8	74:2 84:15 90:4	conformed 49:14	188:2	copied 237:11
247:11,13 269:18	90:12 200:1	confusion 137:19	contention 227:22	244:8
complete 269:22	201:11 203:14	conjunction 273:3	context 152:4,17	copper 17:22 98:1
completed 14:4,5	206:2 207:20	connected 179:24	235:9 236:6	100:5 176:21
49:13 190:10	213:6 216:15	connection 176:20	240:25	177:12 178:8,25
completely 62:6	218:12,13 222:4,8	177:4,8,14 178:12	contingency 132:10	201:21 202:3,7
200:18 228:20	237:2 238:18,23	connections 18:9	continue 12:17	coppers 201:23
compliance 76:5,8	249:24 251:18	177:6	39:6 41:5 73:15	copy 229:16 250:10
242:12	255:25 256:3	consequential	86:21 92:25	267:11
compliant 241:12	259:20 261:3	154:4	133:11 162:17	core 83:18
242:18,19	263:2,4	conservation 92:23	continued 3:1 5:1	corner 171:9
complicated 56:14	concluded 231:15	consider 43:8	29:8 39:17 41:3	222:21
262:23	273:14	103:16,18 104:8	41:22 42:7 50:24	corners 179:23
component 238:2	conclusion 44:1	256:16	60:23 73:7 88:2	corporate 39:6
comport 153:17	128:8 157:8 246:5	consideration	190:12	162:24 163:9
154:11	conclusions 17:17	194:12 236:15	continuous 134:6	corporation 12:19
compounded 27:22	concurrently 124:5	considered 53:11	136:7 139:18,22	12:21 14:22
comprehensive	condition 129:6,6,7	68:14	140:2	correct 9:4 16:7,9
158:23	168:19 243:23	considering 36:24	contract 100:9	19:10 21:23 22:16
compromised	conditions 116:19	131:19 223:10	203:21	35:18 41:4,15,19
116:5	141:18 143:7	consistent 169:17	contraction 100:7	43:23 44:15,16
compston 37:14	144:2,4 200:13,17	259:2	111:14	48:21 56:21 58:1
computer 186:16	213:16 247:18	consistently 230:11	contractor 110:24	58:8 63:17 64:21
concentration	248:17 268:16	consolidated 18:5	208:19	65:24 66:3 71:9
111:21 212:1,6	conduct 26:24	18:14 27:8 257:14	contractors 93:6	89:12 91:12
251:15 253:4	33:12 34:4 92:16	constantly 140:17	150:11 151:11	109:18 112:13,24
concentrations	93:7 236:3	constitutes 274:10	193:11,12 209:4	119:7,10 120:4,11
253:10	conducted 37:5	consult 157:2	contracts 100:6	120:21 122:22
concern 47:1 61:16	63:11 93:21	consultation	contradict 165:20	123:4 138:11
61:21 66:17 69:13	106:19 123:2	155:20	contribute 103:5	139:8 150:7
69:20 70:2 78:2	215:2 237:10	consumer 254:7	contributed 101:24	153:23 156:9,11
174:11 200:6	conducts 241:21	consumers 44:4	contributing 75:20	160:17 164:16
202:22 203:19	conferred 225:15	146:16	control 12:25 13:2	169:10 170:16
206:4 225:3	confidence 62:17	contact 33:10 82:3	13:5,15 83:20	171:17 176:6,11
247:22,23 250:2	confident 126:8,10	94:22 119:12	108:21 178:5	182:13,14,18,22
252:6 256:9 257:1	126:10 185:13	120:7 163:12	242:8	188:4 204:16
261:9 263:9	configuration	193:10 244:6	controlled 126:5	217:14 227:21,25

239:15 243:1,12 243:16 271:15 corrective 184:6 correctly 98:3 correlates 205:8 correspond 234:3 corrode 241:4 corroded 200:15 corrosion 200:9 215:14 corrosive 200:19 215:15 cost 17:23 31:14,19 69:8 88:9 costs 144:13 182:2 182:12,16 183:3 185:3 234:15 couldnt 178:5 counsel 274:13 counseled 155:15 count 181:7 country 57:18 141:10,16 144:15 187:17 201:19 225:17 247:18 248:15 268:24 county 201:17,24 202:5,10,11,19 couple 23:7 40:20 45:16 50:21 86:11 91:18 150:1 170:3 180:8 197:3 217:2 230:6 267:5 course 90:20 111:10 119:8 175:8 219:3 273:10 court 1:1,12 6:9 7:3 7:6 186:8,11,15 186:20 205:17 216:5 221:25 222:16 274:23 cover 126:16 150:20 152:10,12 153:6 182:12 183:3 185:3	267:17 covered 95:24 182:24 273:5 covering 150:25 covers 151:17 cpi 26:1,10 27:10 29:1,2 31:8 32:19 32:25 33:5,12,22 34:13 35:3,12 36:20,24 37:13,16 38:1,9,14,21 39:5 39:12,14,19,21 40:10,15,24 41:6 41:9,23 60:17 63:25 64:6,10,21 74:21 77:8 99:4 121:17 144:10,22 144:24 145:2,20 146:4 157:21,22 161:11 162:10,12 162:16,17,21,21 163:1,12,15,18 165:1,6,9,12,16 165:25 166:4,9 180:6 189:23 190:1 197:5 233:2 233:15 234:1,6 258:1,3,3,17 259:4,6,7 cpinstalled 258:16 cpis 34:5 35:7,13 35:22 36:3,16 37:19 41:20 42:13 165:17 258:17 crack 235:7 cracking 180:19 create 184:14 created 74:16 137:11 261:20 creating 92:11 cregger 222:11 crenshaw 1:13 crimp 177:10,13 178:25 crimped 235:6 crimping 176:21	criteria 60:18 61:20 128:7,21,25 crittenden 6:4 cross 4:5 27:24 133:7 237:13 267:2 crossfunctional 83:1 crosslink 73:18 236:11 crosslinked 116:15 236:1 crosslinking 27:18 28:2,6,9 72:15,22 73:22 102:24 103:1 105:7,10 117:19 126:16,21 126:23 230:6,23 237:21 crystal 1:25 6:8 10:22 274:22 csa 70:15 77:9 92:4 124:2 culture 190:4 current 64:7 68:22 74:8 76:5,8 78:3 171:23 currently 64:8 curve 67:8 custom 15:6 customer 30:16 37:11 38:7 39:13 54:25 55:7 92:17 94:13 95:20,23 96:21 100:19 101:12 102:19 105:18,20,21 106:16,22,25 107:18 108:8,15 113:13,25 114:11 114:16 119:1,12 119:15 136:5 140:5 155:25 156:20 163:5 181:1 209:3 213:13 217:5,6	222:11 226:3 228:2 232:13 250:25 261:24 263:15,16 264:21 265:1 customers 19:14 30:8,10 37:19,24 38:9,14,20 39:4 44:10 45:25 46:5 46:7 57:16 87:16 88:3,6,14 93:3,14 93:22 97:7 109:10 117:1,7 119:5 120:12 135:22 137:15,15,22 144:17 151:11 154:11 155:20 161:18 162:1 174:23,24 177:14 180:22 181:25 188:16 193:2 196:13 208:19 210:19 211:3 214:14 219:6,14 231:16 240:3,8,14 242:7 248:25 256:11 267:25 269:12 cut 12:9 83:15 112:10 144:12 172:21	69:11 89:22,25 111:5 138:17 231:8 date 1:24 7:22 43:3 59:25 65:5 73:16 139:24 192:25 244:4 274:5 dated 131:4 136:25 197:11 199:21 203:11 205:22 216:13 218:11 229:10 239:19 251:14 261:2 263:2 dates 187:12 daughter 24:19 dave 169:7 david 4:13 48:3,6,7 50:6,22 51:7 52:2 60:11 61:8 69:16 78:6,17 81:2,23 82:1 84:5 85:4 90:20 91:11 125:2 125:11,15,17 175:9 211:13,14 259:25 260:6 davids 72:13 day 6:5 42:2 108:11 136:19 148:23,23 148:24,25 days 111:6 150:1 260:2 daytoday 19:11 158:14 174:1,9 dayton 208:4 dcr 187:10,14,23 deacon 244:16,24 deal 39:2 186:1,23 dealing 108:15 151:1 237:15 deals 44:25 dealt 56:17 180:5 dean 7:23 dear 240:7 debate 90:22 debating 202:18
--	---	---	--	--

debbie 83:9,19 84:3 107:21 112:14 118:3 122:2,14,20 130:5,5 143:9 158:11 204:12 229:9 231:2,25 233:12,21 235:4 265:4	184:17 192:20 193:24 209:14 214:8 227:6 270:16 271:2,6 defectively 151:6 151:12 defects 9:15 defendant 1:8,19 3:3 defensive 87:19 define 177:5 189:3 240:24 241:5 253:22 defined 271:21 definitely 235:7 definition 188:24 definitive 231:8 definitively 234:17 degree 12:1,2,10,12 105:7 126:16 230:6 degrees 204:14,21 255:10,11 deionization 200:11 del 238:12 delay 217:7 222:12 delayed 209:18 delays 219:4 delignificationre... 187:5 delivering 133:7 170:6 demand 134:1 demanding 201:21 dennis 261:11 dentification 203:7 depalma 2:9 department 84:22 95:12 121:12 154:16 155:17 160:8 169:15 183:25 195:8 200:22 206:7 217:4 224:5 226:22	departments 71:5 depended 218:6 dependent 64:17 64:20 65:14,18 68:4,9 89:3 depending 64:5 100:24 116:20 129:2 depends 57:14 70:17 89:18 96:17 102:5 106:12 136:11 141:21 262:15,15,16 depiction 167:19 171:12 depleted 87:3 deponent 1:23 deposed 227:9 deposition 6:3,6 7:24 8:13,14 9:2 24:21 25:11 228:24 265:23 266:2,4 273:14 depositions 8:4,9 10:14 25:5,8 depot 191:8,14,14 191:21,25 192:12 describe 20:3 26:15 27:12 67:2 142:7 173:23 210:12 215:19 229:18 235:14 269:25 described 47:4 102:16 253:19 describes 204:13 267:14 describing 48:13 description 49:15 133:4 154:5 design 156:10 designation 45:17 designed 170:14 destroyed 200:15 detail 105:16 113:13,25 115:9 116:24	details 49:9 58:22 59:2 66:6 105:14 109:10 133:10 174:1 191:20 237:18 determination 92:12 99:18 107:2 139:15 156:7,14 185:7 200:16 215:15 258:19 determinations 128:5 determine 70:23 95:4,7 102:2 103:6,12,24 105:7 106:11,14 113:20 128:3,11,22 129:8 143:15,18 178:20 214:20 215:18 230:6 233:15,25 235:25 237:21 243:13,17 270:15 272:1 determined 75:7 105:9 148:10 193:13 215:9 258:15 determines 138:17 determining 101:14 102:7 143:12 156:25 deutsch 2:18 4:4,6 166:22,23 186:6,9 186:13,18,21 205:15,18,19 216:7,9 220:22 221:21,24 222:17 251:8,10 266:23 270:8,11 272:14 developed 33:25 113:19 265:7,8 development 4:14 14:13 20:6 60:10 88:11 125:4 173:21 device 177:8,10	178:1,9 186:14 devices 176:20 177:4 178:12 179:5 devoid 242:25 dezincification 186:2,23 187:2,9 187:25 198:20 199:3,4 202:23 dialogue 230:2 diameter 201:22 didnt 59:1 63:8,20 70:3 75:17 81:7 86:23 88:4,23 91:9 96:11 103:16 110:19 112:5,10 113:24 121:18 126:11 138:19 141:12 154:22 155:19 156:6 158:6 161:2 162:2 162:2,24,24 165:12 174:8 176:9 177:23 178:17 182:4 192:13 209:15 213:22 215:25 235:22 257:19 258:4 259:1 263:21 271:11 272:1 die 99:22,23 117:23 difference 52:5,6 89:19 144:23,23 145:9 231:4 differences 27:13 145:19 146:1 268:5 different 18:7 27:1 32:18 44:21 53:4 59:7 77:9,13,16 96:18 100:5 104:20 114:19,21 118:12 123:3 132:5,14,15 137:24 143:7
--	--	--	--	--

152:9,22 170:23 172:9 173:7 190:4 198:12 201:19 203:25 209:4,5,21 210:22 216:22 236:19 246:19 262:11,11 difficult 192:10 dig 75:1 109:4 digests 25:7 digging 200:10 diligence 37:5,7 dimensions 103:2 231:4 direct 4:3 7:11 79:9 168:16,21 169:23 171:17 267:7 directed 137:14 150:9 160:14 direction 174:7 178:19 184:25 206:8 274:10 directly 22:14,17 27:21 169:4 170:2 170:3 176:1 260:22 274:14 director 48:7,9 disagree 232:24 266:13 disagreed 157:7 disclaimer 140:5 disclosing 248:23 discovered 181:24 192:19 discuss 37:18 79:3 84:12 90:9 discussed 24:24 37:10 72:15 79:5 123:14 128:1 131:1 159:2,8 239:7 269:6 discussing 61:8 91:14 131:10,12 131:15 162:1 164:14,24 202:4 234:14	discussion 43:19 72:11 90:17 131:3 203:1 discussions 40:14 47:10 49:2 52:15 59:3 78:9,11,14 78:24 90:25 91:2 91:3,5 93:8 132:3 200:5 disposition 42:13 118:11 164:24 dispute 226:25 266:14 dissipates 142:12 distinction 256:18 distribution 20:11 83:13 267:22 distributor 208:18 222:11 distributors 38:2,3 150:12 161:18 192:23 260:11,12 district 1:1,1,12,13 division 1:13 24:2,3 dlt 49:12 document 5:19 47:19,23 48:1 59:14,20,23,25 60:3,5,8,10 61:18 63:24 64:13,24 68:3,18 74:5,15 75:21,22 78:22,23 88:12 89:13 107:13 130:14,18 130:20,21 131:4,9 132:15 136:24 137:1,3,10,18,21 139:3,19,24 140:4 141:3 150:4,9,10 159:3 163:24 164:4,19 167:15 168:15 183:21,22 200:3 201:10 203:12 206:1 207:15,23 211:24 216:12 222:20,22	223:5 224:24 229:7,11 237:1 238:25 239:17 249:23 251:18 256:2,24 257:3 260:24 262:25 263:3 264:12,18 264:20,23 265:5 265:24 266:14 267:8,12,14,15 documentation 216:23 documents 25:2 34:13 93:10 94:8 140:17,22 167:16 187:11 195:17 doering 1:23 4:19 6:3 7:13,23 48:1 166:23 267:4 doeringr2 196:20 doesnt 58:13 70:12 77:11 104:21,25 107:8 119:16 140:4 152:15 158:5 165:20,20 177:11 207:17 248:19,19,21 249:11 268:17 doing 10:24 62:4 69:19 71:25 72:2 82:12 85:5,6 109:16 110:3,12 112:3,5,7,12 129:18 143:10 158:7 166:4 172:10 190:6 208:17 209:15,24 226:13,15 229:23 230:25 231:10 235:23 236:2,11 237:19 240:15 248:6 doityourselfertype 178:1 dollar 217:22 218:1 218:1,3	domestic 176:22 252:25 262:21 donnie 83:13 dont 9:9,15,19,22 10:7 11:4 18:6,11 18:16 23:6 24:23 25:1 33:5,5,7,9,23 33:23 34:6,6,8,17 34:21 35:4,4,9,9 35:10,17,25 38:16 38:22 39:1,1,3,3 40:3,13 42:2,9,11 42:17,17 45:10 46:2 47:3 49:1 50:4,12 51:12,18 52:19,25 53:9 54:11 55:9,19,19 56:7,7 57:20,22 57:24,24 59:5,12 63:13,21 64:22 66:4 67:20 70:21 71:17 72:11 74:1 76:14,14,18,20,21 77:4,23 78:5 79:6 79:22 80:3,6,22 80:23 81:16 87:2 90:9 91:1,1,2 94:10 99:6 100:6 100:10 101:21 102:13 103:5,21 104:11,12 105:14 105:16 107:1 108:24 109:20,24 110:11,11,12,17 110:17 112:25 113:1,1 114:1,9 114:20 115:7,25 116:14 117:20 118:21,23 119:24 122:17 124:11,21 126:3,18 127:2,9 127:10,13,22 128:9 130:7,20,20 130:24 133:9,23 133:25 135:24,24 136:2,14,15	138:13,19 139:10 139:12 141:19,19 142:3,19,19,20 143:1,1,7,15 144:3 145:4,6,9 145:11,15,15 146:1,6,8,12 148:1,7 149:5,11 149:15 152:2 156:2,4 159:1,4,6 161:25 163:8 165:3,10,13 166:2 166:8,12,12 168:13 171:25 172:10 173:8,8,15 175:10,23,25 179:18 181:8,12 182:9 183:9,10,11 183:18 184:5,7 185:12 188:7,8,24 189:5,5,10,18,19 191:20 192:4,6 197:18 199:7,16 201:1,4,14 203:2 203:24 204:1,1,6 205:11 206:18 207:7,11 213:15 214:3,4,11,15,24 214:24 215:4 217:4,8,9 218:5 219:17 220:20 221:8,8,18 223:8 225:11 227:15,16 227:16 228:3,19 230:15 232:9 233:11 237:6,19 238:15,16 239:1,1 240:1,1,3,10,19 242:13 244:13,13 244:18,18 245:13 245:15,17,17,17 246:2,14,24 247:9 247:10,19 248:12 248:12 249:1 250:24 252:7,16 252:20,20,21
---	---	---	--	---

253:24,25 257:20 257:20 258:12,12 258:13,20,20,23 259:8 263:20 264:7,8,14 265:8 266:5,6 268:1 270:6,25 door 50:15 73:3 dosage 146:7 dose 234:4,5 double 149:9 doubled 56:19 doubling 191:2 doubt 53:17 76:24 doubting 53:19 doug 168:6 173:10 225:14 235:17 237:11,17 238:9 250:10,11,12,25 265:21 266:17,18 dougs 173:17 dow 23:3 201:8 203:11 dozen 102:15 dr 252:11 draconian 155:2 draft 154:22 252:4 261:17 drafted 65:22 66:3 137:3,5 drafts 257:8 dramatic 87:13,22 draw 246:5 drive 2:10 6:4 driven 30:7 61:13 92:10 231:8 driving 148:24 drove 149:1 dry 154:23 drywall 152:6,14 267:18 dual 77:6 dud 178:23 due 37:5,7 64:18 65:19 99:18 116:1 116:19,19 227:23	231:13 245:3,22 duly 274:7 duplicate 40:5 duplication 39:13 162:25 dura 143:10 durapex 49:13 136:25 137:25 138:2,7,25 139:18 139:21 duration 205:8 220:19 duties 19:13 <hr/> E <hr/> e 68:25 75:1 203:10 221:9 222:3 259:15 260:25 earl 84:5 122:4,10 122:14,16 252:5,9 252:12,17,24 254:3 earlier 72:15 87:19 88:12 91:19 117:24 142:21 157:14 162:15 165:12,21 175:3 179:12 188:21 194:5 204:6 205:1 225:13,15 233:5 241:1 251:2 257:8 262:17 270:23 earls 252:10 early 61:19 114:22 121:16 134:8 161:9 187:3 earnest 112:9 easier 32:1,3,11,12 32:13,14 110:14 east 160:25 161:1 easy 106:2 eb 27:25 28:3 ebeam 72:24 73:5,8 73:11,17,22 74:8 74:12,22,23 82:14 116:13 125:23	126:1,6 146:7 226:12,22 234:3 ebeams 126:12 edge 134:3 edit 217:7 edits 217:8,9 education 11:16 12:17 137:17 effect 36:6 71:13 251:15 254:1 effective 34:2 193:23 efficiency 136:18 efficient 134:15 211:1 effort 110:25 129:23 191:24 193:5 efforts 92:24 130:11 eight 114:6 146:3 163:4 either 35:1 67:24 81:7 100:3 101:1 124:1 133:11 137:6 145:17 147:24 169:18,18 206:10 235:2 274:13 electron 28:1 electrons 72:19 elements 229:17 eliminating 203:3,4 elkhart 15:20,21 83:25 120:18,23 121:3,6,15,18 122:10,13,20,25 129:12,16 130:1,9 143:10 158:7 172:5 185:6 190:15 elses 225:9 email 2:13,24 3:10 4:13,16,21 5:3,4,5 5:6,7,8,9,11,12,14 5:15 48:2,4,11,13	49:11,23 50:7,23 107:17,20 108:6 113:14,17 164:5 164:14,18,21,23 165:3,5 166:10 196:16,19,21 197:9,16,18 198:11 199:20,25 200:21 201:8,13 201:15,16 202:4 203:9 204:6,8 205:21,22,24 207:14,20 213:2,3 213:8 214:6 216:12 217:12 218:10,11 220:25 221:1,3,7 222:3 224:25 225:23 226:16,17,20 229:8,9,15 230:1 231:9,25 233:13 233:21 234:12 235:4,16 236:24 237:4,11 238:9,20 238:22 244:3,4,5 244:7,11,24 245:1 245:1 249:19 250:4,9,10,17 251:12,13,14,23 252:2,24 255:24 255:25 256:5 259:15,16,19,24 260:6 261:1,3,7 263:1,7,12,14 emails 56:15 197:11 203:23 emery 23:1 164:20 213:19 250:9 employed 73:16 228:3 employee 274:12 employees 39:19,21 40:10 141:3 employer 242:5 employment 8:5 encompassed	225:17 encompasses 167:15 171:7 197:10 199:21 205:23 207:15 213:1 216:11 218:9 221:2 222:2 244:1 249:20 260:24 265:12 encompassing 264:19 encourage 226:6 ended 21:17 203:24 204:1,7 236:2 258:13 enduser 96:5 128:13 230:18 260:20 endusers 192:20 225:24 energy 134:15 136:17 engineering 48:7,9 71:4 72:4 83:3,24 84:22 121:12 engineers 49:10 84:9 158:7 187:1 england 211:16 enlighten 266:21 enrolled 13:24 ensue 100:11 ensure 33:18 71:20 89:14 158:13 184:1 242:25 entered 28:13 entering 146:21 entire 52:16 170:6 270:2 271:1 entirely 54:16 227:23 entirety 164:4 entities 163:10 entitled 68:18 74:7 entity 39:6 58:20 63:10 70:24 72:22 76:12 77:2 162:18
--	--	--	---	--

170:15 entrusted 51:7 61:14 71:19 84:24 entry 58:9 equipment 41:6 73:7 226:18 230:8 236:4 equistar 64:8 erl 96:22,24 105:19 erls 96:20,20 escape 23:8 essentially 56:10 72:19 73:2 96:6 150:25 164:25 269:13 established 194:6 264:15 estmf2023 251:16 europe 132:8 evaluate 52:18 95:4 101:23 102:24 109:3 111:7,21 121:4,23 185:2,6 185:14 229:21 230:3 231:21 243:23 260:19 evaluated 120:20 222:13 evaluates 235:18 evaluating 34:2 100:21 104:20 112:15 122:6,16 122:20 185:10,16 229:24 236:20 249:8 evaluation 94:17 94:18 97:16 111:3 112:19 113:11 114:12 120:1 121:15 122:23 127:21 213:14 223:4 230:9,10,16 236:10 265:4 evansville 218:19 218:20 evening 136:21	event 150:21 eventually 87:24 206:21 236:3 everyones 34:19 evidence 128:11 230:21 248:16 268:23 evidencing 34:14 evolved 135:9,19 evolving 140:18,22 exact 38:16 40:4 63:21 113:8 145:16 152:2 181:8 188:24 220:9,16 259:8 270:25 exactly 41:25 42:9 50:4 55:19 56:1,7 88:24 99:6 114:20 121:11,13 133:17 135:24 136:2 165:3 181:12 201:1 213:16 214:4 221:18 227:7 234:10 246:14 251:25 253:25 258:14,20 263:21 exaggerating 256:18 examination 4:3,4 4:5,7 7:11 102:17 166:21 230:1 267:2 272:16 examining 106:9 example 114:22 116:16 119:13 123:21,24 155:3 268:25 examples 124:4 exceed 147:6 148:2 exceeding 147:7 148:12 159:23 161:21,24 228:15 exceeds 138:8,25 excessive 101:8	exchange 180:22 201:15,16 215:2 exchanges 35:4 exclamation 250:20 excludes 154:3 exclusive 119:9 123:18 exclusively 19:23 153:22 excuse 29:12 exemption 207:11 exhibit 47:21 50:20 50:24 59:14,18,21 74:5 88:12 107:14 107:16 130:15 136:22 150:2 153:14 163:23 167:13 171:15 197:14 199:23 203:6,7 204:10 205:16 207:21 212:3 216:16 218:9,14 220:23 222:5,18 224:22 225:1 229:13 232:12 236:23,25 239:22 244:9 249:25 251:12,20 255:23 256:21 259:14 261:4 263:5 264:24 265:15 267:8 272:18 exhibits 4:10 5:1 exihbit 205:14 exist 62:21 94:11 162:17 165:12 existence 163:10 existing 68:23 exists 141:15 expand 100:8 expands 100:6 expansion 100:7 111:13 117:9 144:6,13 248:15 expansions 180:1	expect 232:7 expected 67:12 68:11 232:2,4 expecting 234:4 expedite 219:2,9 expenses 69:4 expensive 202:8 experience 130:1,2 157:23 189:6 experienced 9:16 expert 67:4,22 147:14 160:15 271:9 expertise 56:7 62:22 122:9 130:12 experts 125:24 126:2 185:22 expires 274:24 explain 52:9 144:20 179:16 241:12 explained 183:22 explaining 217:6 explanation 190:20 explicit 152:20 exploring 132:9 expose 255:16 exposed 27:16 98:9 100:1 109:24 115:17,18 235:24 exposure 119:5 205:3 237:8 expressed 191:24 extend 159:19,24 extending 159:14 extensive 183:19 extent 25:20 58:6 82:3 85:7 129:25 154:2 extrapolated 60:19 extrapolating 251:16 extremely 215:23 extrude 74:21 extruded 28:4 extruder 41:6	extruding 99:23 extrusion 73:7 172:20 173:1 226:22 extrusions 15:6 <hr/> F f 104:15 137:18 138:2,9 139:14 197:23,24,25 198:1,8,8 face 262:5 facility 5:16 33:14 41:1 73:1,2 80:11 103:14,18,25 104:7 114:13 142:11 241:12 242:17 264:20 facing 174:18 facsimile 2:23 3:9 fact 34:25 61:19 62:18 66:12 73:11 116:18 123:17 127:21 146:4,14 148:16 161:12 187:6 252:19 factor 148:21 255:5 factors 102:7 103:5 139:20 140:25 143:4 factory 180:18 239:14 facts 148:5 factual 266:9 fail 47:1 62:3 64:12 69:21 248:9 255:12 failed 36:17 53:21 54:8 59:10,13 63:6,17 66:13 67:6 72:8 96:16 103:4 104:14 120:12,13 122:21 139:8 182:20 200:8,9 204:15 213:14 215:19
--	---	---	---	--

224:13,14,17,18 224:18 227:24 270:21,22 failing 64:5 84:16 216:2 231:17 fails 62:9 115:14 254:21 failure 62:17 98:10 99:18 100:7,16,22 100:24 101:3,11 101:15,24 102:18 102:22,22 103:24 104:1,19 105:10 105:21 106:4,14 108:9 109:19 114:12 115:16,20 115:21,22,23 116:1,8,18 117:20 120:2,7 122:1 128:3,7,23 129:3 129:18 138:9 143:16,23,25 148:11,12 185:2 228:6 229:22 230:12,21 232:1 232:16,16,23 237:16 238:11 247:24 251:16 254:18 255:17 272:10 failures 9:17,18,23 65:10 109:11 118:17,18 129:5 144:7 162:8 181:10 185:20 188:8,11,14 232:7 232:25 233:8 234:23 235:18 238:12 269:5,6 270:1,5,23 fair 22:2 49:14,14 57:1,3 72:22 129:19 139:23 148:14 163:13 165:1 182:21 189:9 193:4	231:15 fairly 133:6 185:12 193:5 218:21 236:19 fall 86:17 familiar 16:17,20 55:21 66:6 129:17 130:19 174:7 185:17 212:11 227:7 far 10:24 52:12 56:17 106:2 118:24 220:17 fast 260:19 faster 88:18 fault 156:16 fears 152:18 features 32:1 133:24 137:16 feb 5:9 february 224:13 229:10 237:12 federal 6:7 187:20 fedex 196:13 feedback 94:1 192:12 feel 96:15 164:4 feeling 133:21,22 199:16 feet 62:13,14 247:9 fell 126:25 fellow 80:4 felt 44:5 54:5 66:18 66:20 117:22 121:3,21 126:8,10 133:17 144:19 170:22 171:2,3 177:25 178:6,7 213:25 215:3 226:13 231:7,20 262:18 fide 247:13 field 62:15,15 66:21 97:20,24 98:8 99:18 103:8 116:19 129:11	188:9 figure 270:13 file 219:3 files 25:16 94:13 195:4 financially 274:14 financials 83:5 169:16 find 26:17,24 88:23 98:19 188:23 189:7 192:7 234:16 finding 26:18 findings 263:13 265:5 finds 253:1 fine 10:23 72:1 164:9 finish 10:18,21 18:23 75:21 firm 241:20 246:18 first 8:12,14 10:16 18:23 24:10 42:2 44:22 45:20 48:17 60:3,9 80:15 86:14 87:9 96:23 97:25 99:2 102:25 104:11 107:22 110:8 130:17 131:7,21 132:18 137:23 147:6 150:9 164:5,19 167:5 186:25 194:18 202:20 206:25 213:3 224:12 231:24 232:13 235:15 240:23 242:23 252:2 257:16 264:7 269:5 274:6 fish 38:4 fishes 40:23 fit 174:19 214:7 fits 179:1 fitting 95:2 177:7 180:3,19 181:11	188:14 198:3 199:2,8,9 200:7,9 200:18 214:25 215:12,19 222:12 223:20 224:8,11 235:13 269:4,6 270:5,17 271:7 fittings 16:12,14,22 16:24 18:7,9,12 32:23 33:10 92:6 120:17,23,25 121:2,4 124:8 151:22 164:25 171:1 176:5,9,16 176:17 180:1,6,10 180:17,20,23 181:6 182:3,20 183:13,15 184:4 184:13,17 185:1,5 185:6,10,16 186:2 186:24 187:10,10 187:25 188:9 192:18 197:23,25 199:1,11,15,17 206:11,12,17 208:9,13,14 209:14 210:6 211:8,8 212:2 213:14,18,23 214:2,8,11,15,19 214:21 215:2,22 215:25 216:2,17 218:18 221:12 222:10 236:16,20 241:4 245:24 246:13 254:2 257:13 269:7,11 269:13,23 270:1,2 270:14,16 271:1 272:5,9 five 85:13,14 181:9 219:14 fix 186:12 fixing 182:2 fixtures 147:8 fleet 196:12	flip 232:11 florida 210:20 flw 1:2 focus 48:2 164:5 171:4 178:8,12 focused 19:23 160:16 199:10 folder 264:15 folks 79:23 184:15 follow 91:19 98:5 100:10 123:14 193:20 194:4 followed 187:23 following 64:9 252:4 followup 270:9 force 30:7 forces 61:13 foregoing 274:4 foreign 99:22 foremost 90:7 forgotten 116:13 form 29:6 33:4 34:16 35:24 36:5 39:10 41:10 42:8 50:1,10 51:6 53:8 54:10 55:8,18 56:22 58:24 61:3 61:22 62:11 63:18 64:14 65:21,25 66:16 69:15 71:15 72:10 73:24 74:19 76:9 80:20 84:19 89:17 92:15 103:20 104:9,17 107:11 115:24 129:20 136:10 138:12 139:5,9 145:1,22,25 151:16 152:1 153:9 155:13 162:19 163:14 166:1 186:3 188:5 189:4 193:18 194:1,16 198:24 229:4 230:13
--	--	---	--	---

231:18 232:8,20 234:24 237:22 238:8,14 243:21 244:6 245:10 246:22 247:6,16 248:10 253:13,23 254:16 255:8 262:14 264:22 265:1,10 266:11 272:4 274:9 formalities 163:9 format 207:18 formed 271:17 formulation 250:5 found 34:20,21 144:12 150:1 189:15 200:11 268:23 four 13:14 15:2 22:20 65:23 77:9 85:20 111:7 189:13 191:16,18 192:5 197:4 224:14 250:20 fourth 223:5,13 fraction 112:23 frank 252:11 free 164:4 242:25 frequency 44:25 frequently 82:1 friendlier 32:2,11 fritolay 196:14 full 7:22 50:23 60:15 128:19 154:1 182:21 208:21 fully 200:15 function 37:11 39:18 functional 20:20 functions 20:11 39:12,16 162:23 162:24 furniture 152:6,13 267:18 further 68:11 230:7	272:14 future 272:10 G gage 3:5 gain 68:11 98:12 126:1 130:11 149:24 gained 130:1,1 game 58:10 garden 6:3 gary 125:11,12,17 169:8 gauge 111:4,6,24 112:14 149:25 geers 169:6 gel 126:25 127:18 229:21 230:5,8,10 230:22 231:10,16 235:2 236:3 237:13,20,25 239:10 general 14:11 19:20,22 20:4,18 22:5,6,18 24:1,7 24:13 33:15 36:12 36:15 45:13 51:15 54:23 56:10 58:15 66:14 67:23 71:18 71:22 72:14 73:20 76:5,16 80:19 82:16 85:16 95:8 99:13 135:25 137:6,7 150:14 153:18 155:22 159:11 160:22 167:12 171:4 172:1 174:15 190:13,16 194:23 199:14 228:15,17 239:2 241:3 254:4 generally 19:11 20:3 26:15 27:12 140:16 161:5,15 268:13 generated 110:14	112:21 gentleman 172:25 gentler 155:4 geographic 232:2,5 232:6 georgia 149:4,14 158:19,19 210:16 210:21 212:9 germs 142:3 gesturing 11:2 getting 51:16 52:11 78:6 103:23 104:23 123:5 139:16 174:18 190:22 193:24 201:13 202:13 203:1,10 207:9 212:17 216:22,24 216:25 221:16 222:12,14 231:16 252:13 261:6 263:7 give 7:7 10:17 30:13 31:14 37:22 82:2 85:6 108:8 117:12 128:13 134:3 169:21 236:11 240:13 247:14 258:6 given 7:24 12:16 119:20 138:14,15 184:3 190:20 234:5 giving 139:23 150:14 184:10 208:15 gm 118:5 go 10:16 18:9 25:24 31:11 34:18,20 50:16 68:17 69:9 88:20 91:17 100:21 101:13 102:7 108:22 110:22 113:6 119:8 120:14 121:15 123:7,9,9	123:12 129:10 133:12,13 139:14 143:12 146:15 151:4 152:9,24 156:13 157:10 160:1,4 166:6 169:6 175:11,13 186:11 189:10 192:6 201:24 202:3,6 216:5 218:3 221:19 249:13 251:6 255:10 257:6 260:1 263:25 goal 68:25 69:1 goes 50:14 64:4 138:6 139:21 140:23 253:5 going 26:20,21 46:18 47:19 50:21 55:10 56:15 58:7 58:25 71:24 77:21 84:13 86:4 87:22 88:9 92:25 96:23 96:24 98:7 106:24 107:12 111:10 113:2 114:6 115:19 120:9,18 120:23,23 121:6 122:5,13 123:8 126:12 129:12 130:22 135:10 148:25 149:20 152:24 154:18 156:24 162:6 164:5 167:1 174:22 175:11 176:12 179:23 186:18 187:17 188:20 189:17 194:19 199:5,16 199:17 202:9,17 202:25,25 203:2 209:25 211:23 219:4 226:18 244:21 250:5	254:23 260:8 272:23 good 7:13,14 10:24 46:13 48:18 52:18 58:16 62:3 78:25 90:5 103:1 106:23 119:18 122:4 123:8 133:6,18,22 141:23 156:18 158:14 161:1 162:4 177:13 185:18,20 187:16 191:4 195:25 213:25 216:21 226:3 236:18,20 262:22 263:21 270:24 272:2 273:12 gooding 211:14,14 goodling 169:7 goodwill 213:21 214:3 217:20 222:14 272:25 273:9 goose 166:11 gosh 211:5 goto 157:16 gotten 129:16 187:7 207:11 270:19 gouge 106:8 gouged 100:2 gouging 115:2 128:16 228:21 governing 68:9 governs 126:21 grand 3:6 grant 23:3,6 201:8 203:11,17 235:17 237:16 238:9 granted 55:14,14 60:17 64:18,21,22 65:18 grants 237:11 241:15 great 73:14 98:2
--	---	--	--	--

greater 138:22 159:4	hamilton 218:23	headhunter 195:22	hide 80:9 81:3	home 44:24 70:11 117:9 134:13
green 266:18	hand 7:4 267:9	headquartered 198:6 208:4	hiding 81:13	146:21 147:9
greenberg 2:9	handful 180:17 181:6 215:2 216:1	210:15 211:15	high 32:6 62:17 67:10 98:9 100:1	149:7,13,22,25
greg 5:4 199:21 200:20	270:4	headquarters 39:15 83:25	100:16 106:5	157:25 191:8,14
grommets 179:20	handle 32:1,11 49:10 211:15	190:14	111:19 115:17,18	191:14,21,25
ground 10:13	handled 66:5 239:5	hear 227:18	116:2 133:19	192:12 200:12,17
group 51:21 163:16 257:18,19	handles 219:18	heard 10:2,13 141:2,4 168:6	139:11 142:16	202:1 203:22
groups 258:8	handling 95:13 156:19 210:1	hearing 80:15	144:15 146:14,20	254:7
grow 86:4,6 88:2 92:25	228:11,15,17	heat 28:23,23 29:14 136:18	148:16,20 149:6	homeowner 110:24 117:12,15 128:13
growing 19:15 86:12 118:24	hands 58:23 166:6	heater 109:23 111:18,18 179:25	149:10 158:18,25	149:23 164:15
growth 85:22 86:1 86:10 159:17,23	handyman 157:24	180:2 200:14	159:12 161:4,13	165:23 200:7
202:10,17	happen 14:23 120:5 159:17	heaters 147:8	161:17,19 189:13	249:17
grunwald 33:1,3	175:13 184:11	heavilyregulated 63:3	189:16,19 205:2	homeowners 268:7
guess 11:22 50:11 56:3 63:15 66:11	215:25 248:4	hed 56:20 158:5	212:10 234:3	homerun 206:13
115:9,25 119:25	270:23	help 20:24 110:7 111:2 112:18	242:9 247:18,23	homes 44:5 92:23 144:5,6,14
121:9 132:23	happened 10:7 14:24 32:21 41:20	125:24 155:17	248:8,17,23,25	honcho 208:6
133:21 145:6,18	42:9 70:11 102:8	172:6,8 243:13	249:4 254:5,23	hope 88:2
150:13 151:10	106:25 115:3	247:25 252:5	268:10,14,16	host 108:19
155:3 156:21	116:14 119:22	helped 172:4	highdensity 27:17 28:2	hot 134:17 135:1,6 135:23 219:1
198:19 203:23	144:16,21 148:19	helps 261:16	higher 46:4,6,18 59:1 88:8 89:1,14	hotel 9:3
212:11 233:5,6	156:13 196:3,5	hereof 274:6	133:19 234:2	hotspot 159:14 210:4 212:11 233:6
252:16,20 253:17	200:9 214:5	heres 213:23	251:3 253:16	hour 25:1 148:25
guessing 271:13	227:18 230:4	hes 21:15 48:13 50:11 68:15 74:24	254:13	hours 136:19 174:6
guidance 154:19	238:17 240:18	75:9,11 78:21	highest 11:16 131:25 142:17	house 57:21 111:6 142:5 148:20
guidelines 100:11 128:14 248:3	261:24 263:18	108:24 109:18	241:17	149:8 189:9
guy 52:19 69:17 138:19 157:16	happening 135:18 149:24 178:2	157:21,22,24	hightech 186:10	236:14 248:17 273:7
160:3 209:11	198:17 213:24	164:24 168:13	hilfinger 169:5	houses 228:7 248:13,14 249:8 263:11
guys 152:15	250:7	198:13,25,25	hired 125:23 163:18	housing 85:24 202:15
	happy 56:20,24	199:4,7,9 200:22	historically 126:25	hr 40:6 83:16
	hard 179:9	206:16 208:5,5	history 5:18 63:25 190:19 234:4	huge 163:6
	harm 237:19	220:5 224:5,6	266:8	hundred 220:10
	hat 196:1	234:14 245:16	hit 179:4 204:24	hundreds 181:23 184:21
	havens 1:25 6:8 274:22	250:4 253:14,18	hitting 179:7	hurt 70:4
	havent 219:25	254:8	hold 11:18 186:11 199:16 211:2	hydrostatic 132:2
	havethird 70:8	hey 77:10 152:15 158:23 160:3	holds 177:11	
	hayes 169:5	161:19 218:24	hole 243:14	
	head 11:1,1 35:11 124:22 208:6	261:25 262:1	holes 179:20	
	headed 189:25		holmes 1:14	

H

hadnt 97:4 218:22
half 38:23 50:24
170:4 181:14,15
halfinch 49:13
50:24 201:25
hall 207:15 208:2,2
208:3

133:20 hypothetical 54:22 57:23 104:10	25:22 47:22 59:15 164:3 229:18 267:8 illinois 2:11 im 8:18 12:8,8 29:12,16 38:24 39:23 41:11 42:15 43:12 45:9 47:13 47:14,19 49:5,8 50:21 52:9,11,11 52:18 56:1,9,24 66:9 67:4,4,24 70:8,9 71:5 72:12 72:18 78:7,9 86:23 91:16,16 93:24 96:22,23,24 99:4,4 107:12,16 112:10 113:6,23 115:15 117:9 119:3,18,18,22 121:9,11,13 122:16 123:8 124:8,10 130:19 135:14,17 136:12 137:4,4 138:19 142:14 147:13,13 153:15 154:15 155:18 157:22 164:1 165:12 166:23 167:1 168:13 175:16 181:5,21 182:16 183:10,20 185:12 186:4,19 187:11 188:15,20 189:17 189:18 194:19 195:10 203:5 205:13 207:2,2,8 211:23,23 212:10 221:17 223:9,13 223:13 227:7 228:3,9,19 231:24 233:18 234:4,10 238:11 240:16 245:2,2 247:7 250:24 251:3,22	252:1,7,11,15,18 254:18 258:12 266:5 271:8,13,13 273:12 immediate 255:17 immediately 148:22 181:2 192:22 impact 57:24 58:4 63:20 66:18,20 87:22,25 142:3,11 impacted 74:11 85:25 impetus 97:17 implemented 132:21 133:14 235:21 important 57:4 76:6 92:19 237:14 237:20 238:2 importing 178:2 impressed 226:13 improper 101:24 128:6,22 improve 58:7 92:13 improvement 74:8 110:3 115:5 improvements 114:5 116:24 inch 179:5 181:14 181:14,14,14,15 181:15 202:3 243:2,5 255:11 inches 114:25 179:25 incidental 154:4 include 188:22 191:7 206:8 225:21 267:17 included 68:10 117:15 182:14 206:15 213:3 includes 45:21 167:11 including 19:7 48:3 84:8 141:1 154:6	154:13 163:5 inconclusive 102:18 incorporated 211:14 increase 115:7 159:20 205:2 increased 121:20 incremental 114:4 incumbent 192:8 incumbents 192:9 independent 31:19 68:3,12 70:8 138:6,25 191:23 index 4:1 indiana 11:19 12:7 120:18 190:15 218:20 indicate 51:2 232:18 238:4 indicated 51:4 indicates 64:11 134:24 indicating 51:24 232:21 indication 135:19 indicator 231:6 indirectly 274:14 individual 184:12 individually 1:16 2:16 individuals 79:21 indulgence 167:4 industrial 12:19,20 13:9 14:6,21 15:13,17 24:2,3,8 24:10 92:2 123:22 124:9 industries 18:6,14 27:9 257:14 industry 36:6,9 52:13,16,21 53:12 62:1,23 63:2,3 66:23 67:16 77:11 78:20 79:13 89:25 90:3,6 91:14	92:11 98:18 126:15 132:1 135:19 187:5,9 196:12 205:12 industrys 54:14 influences 109:21 influential 198:7 inform 174:10 193:15 information 34:22 37:22 65:13 94:24 96:6 108:8 109:20 115:7 117:1 137:12 138:16 150:14 166:3,5 221:16 235:17 237:14 258:7 260:21 266:19 informations 34:17 informing 96:5 161:18 infrared 111:15 infrastructure 159:24 initial 43:15 263:13 initially 87:23 92:19 initiated 36:23 95:20 119:11,17 143:9 injuries 154:7 inn 6:4 input 231:16 inquiring 261:12 inserted 177:8 inside 84:21 insights 260:5 inspection 101:21 112:4,13 113:12 113:15,22,23 115:5 143:21 inspections 113:5 113:21 142:13 157:15,16,19 158:1 231:7 inspector 12:25
---	---	--	---	--

13:2,6,16 57:21 70:11 install 32:3,14 98:3 98:19 179:4 installation 9:22,25 10:1 100:3,9 101:24,25 102:12 122:6 128:6,22,23 140:8,14 146:24 161:23 224:19 227:24 228:6 248:2 installations 111:11 installed 98:9 117:9 139:22 143:14 184:4 208:12 214:13 224:13 243:18 248:13,15 268:21 installer 100:3 101:20 installers 44:4 98:20 179:6,9 installing 101:20 instance 50:5 96:2 100:19 102:19 114:18 157:5 instances 106:13 107:7 115:12 117:14 156:3 189:15 institute 36:11 79:13 90:8,24 instrument 111:15 111:25 instrumentation 110:6 111:1,2 113:22 instruments 111:20 111:23 112:12 143:19 insufficient 105:10 insulation 204:5 insurance 51:8 78:19 165:18 182:5,23 183:11	208:23 216:20,23 217:11,13,17 222:14 258:8,10 insured 183:3 insuring 71:20 integer 132:2 integers 44:18 96:23 134:21 integrated 190:6,12 integration 21:16 190:2,10 intend 163:8 intended 240:5,25 267:21 interacted 81:24 interactions 79:15 79:20 interchangeable 178:6 interest 116:25 interested 93:17 97:11,18 274:13 interesting 247:21 264:2 internal 95:19 internally 131:16 international 138:7 147:18,19,20,25 internet 245:4,8,13 245:18 interviewed 37:9 93:13 196:1 interviews 93:4,7 intricacies 71:18 introduced 178:4 inventories 187:19 inventory 41:20 42:10,14 86:24 87:1 260:11,14,16 invested 236:4 investigate 103:9 113:2 investigated 10:2 62:16 189:21 233:7 263:10 investigating 32:18	98:15 109:8 110:1 200:8 203:17 investigation 26:24 33:11 95:20 104:5 105:19 106:20 110:3 114:17 123:3 180:21 264:22 265:1 investigative 144:11 investment 28:13 32:6 133:6 175:9 investments 110:6 investors 163:17 invited 226:9 involve 15:23 37:7 158:1 involved 8:21 9:22 9:25 13:6 17:14 21:15 26:8 37:2 42:19 43:15,22 51:10,11 52:16 59:1,6 71:1,5,6,22 79:16,17 80:3,5 81:17 83:8 85:8 90:19,20 96:4 97:4 98:13 173:25 174:8 175:2 180:16,17 182:12 209:18,21 216:17 216:22 218:11 221:10 224:6,7 228:7 244:12 251:24 257:5,7 involvement 17:6,8 26:12,14 43:13,17 79:10 81:21 82:9 82:11 95:9 156:25 173:24 involves 72:18 131:21 208:8 221:11 241:13 242:13 involving 36:11 242:2 245:25 ipc 147:24 148:13	isnt 23:10 69:18 119:16 123:18 129:7 161:20 180:3 iso 241:12,14,19 242:5,11,18,18 issue 87:20 93:15 94:20,25 96:8 104:24 114:23 117:6 120:6 154:20 164:25 186:2 189:20 193:7 197:19,20 198:19,22 201:14 204:6 206:21 213:12 214:8,16 215:1,16 219:1,5 219:8,11 221:9 223:6,17,20 224:11 250:18,22 250:25,25 252:1,6 261:19 266:9,12 267:22 269:17,24 issued 119:19 issues 9:22,25 35:13,20,22 36:11 56:17 62:15,16,19 63:8 71:22 84:12 90:9 95:13 97:20 97:23 98:7 109:3 130:19 141:14 150:19 156:6,7,19 161:10 165:19 166:4 174:11 180:25 181:1 186:23 187:2 198:13 199:6 210:6 214:14 224:8 228:11,14 228:23 229:18 233:4 234:16,17 236:21 262:18 268:22,24 269:3 item 85:4 199:18 items 202:22 itll 10:22	ive 45:15 56:19 78:5 117:10 132:24 133:9 136:6 141:2 167:9 184:18 197:25 241:24 246:8 264:7 <hr/> J james 1:3,3 2:4,5 164:16 jana 53:5,6,6 60:10 79:10,16,17,20 81:17,21,25 82:1 91:3,6 125:14 230:5 236:2 239:9 janas 53:18 january 1:24 4:14 6:5 60:1 216:13 233:22 234:13 235:17 jarod 217:3,12 jarrod 216:13 244:25 jeff 169:5 244:16 244:24 jeopardize 70:1 jeopardy 60:25 jersey 1:1 jim 169:5 job 10:24 13:1,9 14:11,11 16:11 19:12 20:3 21:12 56:10 72:5 73:14 158:3,3 190:22 191:5 196:2 263:21 jobs 15:23 174:23 john 1:15 2:15 33:1 33:3,10 107:22,23 107:24 257:2 joined 33:3 joint 177:6 jr 1:13 judge 1:13,14 judy 1:3 2:5
--	---	---	---	---

july 155:11 250:23 263:2	109:6 110:1 117:6 118:16 122:8	34:2,6,17,18,19 34:21 37:10 38:17	94:1,10 95:7,23 95:24,25 96:1,3,4	139:15,15 140:17 140:18,19,20,20
june 145:8 244:4 261:2	128:1 130:6,10 133:7 134:18,19	38:18,24 39:1,15 39:21 40:3,13,19	96:10,11,16 97:10 97:13,15,15,19,20	140:22,23 141:9 141:10,11,13,14
K	137:21 144:5 145:3 148:3,5,24	41:20 42:11,17,17 43:16 44:2,5,24	98:1,1,5,6,14,15 98:20,20,22,23	141:14,19,21,21 142:6,14,17,19,20
kalberer 168:5 173:11 225:14	150:13 152:7,19 156:14 157:16,23	46:12,13,17,19,19 46:20 47:6,8,14	99:6 100:4,10 101:4,16,22 102:6	143:1,1,6,19 144:16,19 145:5,7
kalberers 225:16	157:24 158:9,17 158:21 159:25	47:18 48:23 49:5 49:5,6,7,8,9,10	102:7,13 103:2,4 103:5,7,10,10	145:9,13,13,14,15 145:16,19 146:1,4
kansas 3:7	160:5,14,14 161:7 169:9,21 170:4	50:2,4 51:7,8,9,12 51:12,19,20,21	104:12,12,23,23 105:24 106:1,2,3	146:6,8,9,12,13 146:24 148:7,21
kate 23:1,6 164:20 165:22 213:19	172:7,9 174:25 180:3,21 187:6,21	52:1,4,5,7,11,16 52:17,19,20,20,22	106:4,8,11,23,24 107:5 108:24	149:5,10,11,15 151:1 152:2,6,12
kathleen 250:9	189:17 200:4,19 209:16 210:3	53:1,15 54:1,5,11 54:11,18,21 55:10	109:4,16,23,24 111:8,11 112:14	152:13,16,16,22 152:23 154:15,17
keep 172:7 209:6 254:17 263:15	217:15 218:6 219:1 229:25	55:19,19 56:7,7 56:12,14,16 57:9	112:22 113:4,6,7 113:18,19 114:3,6	154:18,22,24,24 154:25 155:14,19
keeping 117:1	232:15 235:23,25 236:9 239:2	57:10,10,11,13,16 57:20,20,22,24	114:10,20,21,25 114:25 115:6,6,8	156:2,2,3,6,16,17 156:23 157:3,20
kelly 1:4 2:6	240:20 255:5 kinder 155:4	58:10,25 59:4,5 61:9,12,15,15,16	115:15 117:5,18 117:18,20,25	157:23,24 158:2,8 158:10,13,15,24
kemp 169:7	kinds 92:1 153:2,7 158:8 179:17	61:24 62:14,19 63:8,10,13,21	118:10,11,12,16 118:17,19,20,20	159:2,2,4,6,15,18 159:25 160:3
ken 4:16,21 81:2 107:21 108:11,12	180:2 190:4 198:13	64:22 66:4,4,9 67:4,5,13 69:4,16	118:21,22,24 119:24 120:8	161:6,23,23,24,25 162:1,1,3,20,21
108:23 109:17	kink 106:5 kinked 106:2	69:25 70:2,7,12 70:15,18,19,20	121:11,18,21 122:7,16,17,24	162:22 163:3,5,7 163:18,19 164:3
113:17 164:19,23	kkuhlman 3:10 knew 71:24 126:10	71:2,18,19,20,24 72:3,4,13,14	123:25 124:2,7,11 124:19,21,21	165:2,3,10,11,11 165:13,15,15,20
165:10,13 166:9	149:19 166:11 174:15,16 181:2	73:13,15 75:3 76:14,14 77:4,10	125:9,13,14 126:3 126:7,9,12,12,13	165:21 166:2,2,6 166:8,12,12 168:4
166:13 200:23	193:20 202:24,24 214:22,23,23	77:23 78:5,8,16 78:20,21 79:11,11	126:15,18,24 127:9,12 128:16	168:8,12,13 169:14,15,16
213:4 221:1	270:18,18,19 knock 50:14	79:14,16,17,19 80:3,22,22 81:4,9	128:17 129:3,9 130:3,5,6,7,11,19	170:21,22,25 171:23,25 172:4
234:13 244:5	knocking 216:21 know 9:16,19 10:2	83:2,3,5 84:7,21 84:21,23,24 85:18	130:20,20,24 131:20 132:10	173:2,4,5,5,8,8,14 173:15,16,25
kenneth 1:15 2:16	10:7 11:5,12,22 13:3 19:13 20:10	85:19,23 86:3 87:2,2,4,8,12,18	133:1,3,4,9,10,12 133:13,17,18,25	174:1,2,6,14,15 174:16,16,17,22
kentrol 16:2 24:9	20:12,24 21:17,18 23:6,12,19,19,23	87:21 88:1,6,8 89:2,3,21,21 90:6	134:1,17,18 135:8 135:9,18,20,25,25	175:6,6,7,10,21 175:23 177:13,23
kentucky 6:5,9 196:9 274:2	25:1 26:15,18,19 26:22 28:9 30:9	90:10,11,12,12,13 90:18,24 91:1,2,2	136:2,2,11,14,19 136:21 137:3,10	178:19,22 179:3,7 179:9 181:2,3,4,8
kept 49:7 108:19 141:20 147:4	30:18 31:6,21 32:5,8,8 33:3,15	91:4 92:2,6,13,18 92:21 93:11,20	137:13,17 138:16 138:19 139:10,12	181:22 182:3,3,6 182:7,8,8,9,10
160:23 268:3				
kevin 3:4 11:12 24:22,24 25:19				
267:4				
killing 142:2				
kimberly 1:3 2:3				
kind 17:13 18:23 21:20 22:15 34:4				
40:23 47:10 58:11				
59:7 67:8 68:12				
70:6 78:17 82:24				
83:4,22 91:17				
96:18 97:15,23				
100:13 104:10				

183:18,18 184:5,5 184:6,7,8,9,12,13 184:18,19,19,20 184:20,21 185:12 185:13,17,18,21 187:16,19 188:7 188:10,24 189:5,5 189:10,17 190:3,3 190:5,5,6,10,11 190:23 191:15,15 191:19,20 192:4,4 192:6,10,24 193:3 193:7 194:19 195:4,6,8,9,12 196:2,24,25 197:2 198:11,25 199:16 199:18 200:18 201:1 202:5,25 203:1,25 204:1,6 204:23 205:2,4,13 206:9,11,14,18 207:2,7,8,8,11 208:5 209:3,13 210:5,6,10 211:8 211:17 212:8,10 213:15,15,20,21 213:23 214:3,10 214:11,23,24 215:3,4,11,11,17 215:21 216:2,18 217:1,2,4,8,25 218:25 219:1,2,17 219:19,25 220:6 220:10,10,11,20 221:11,14,18 222:22 223:7,8,24 224:4 225:7,13,18 225:19,25 226:3,9 226:12,13,14 227:15,16,16 228:1,3,5,10,19 229:20,24 230:2 230:15,21,22 231:2,4,5,10,20 231:22,23 232:5,9 233:3,7 235:23	236:9,17,18,19,20 238:16,17 239:6,7 240:1,5,5,14,21 241:1,16,17 242:8 242:13,13,14,16 242:19 244:18 245:2,6,11,14,15 245:16,24 246:2,8 246:9,9,12,15,15 246:23,24,25 247:8,10,10,17,19 247:19 248:3,5,6 248:12,12,13,17 248:19,20 249:1,1 249:1,2,4,7,8,9 250:6,7,8,18,24 251:1,2 252:20 253:24,25 254:4,6 256:12 257:20,20 258:12,12,13,20 258:21,23 259:1,3 259:5,8,9 262:1 262:15,18,19,19 262:21 263:21 264:8,8,14 265:8 265:9,10,16,20 266:18,19 267:18 268:2,4,18 269:21 269:22 270:21,25 270:25 271:2,3,8 271:15,15,16 273:3,5,5,6 knowing 68:15 126:11 145:2 237:13,18 knowledge 36:7,8 40:11 43:8 53:23 85:9 87:5 122:23 126:1 128:24 171:21 239:2 242:23 269:15,19 knowledgeable 121:25 known 45:14 144:15 149:10 165:22 199:6	kshamberg 2:13 kuhlman 3:4 4:5,7 25:22 29:6 33:4 34:16 35:24 36:5 39:10 41:10 42:8 47:11 50:1,10,16 51:6 53:8 54:10 55:8,18 56:22 58:24 61:3,22 62:11 63:18 64:14 65:21,25 66:16 69:15 71:15 72:10 73:24 74:19 76:9 80:20 84:19 88:18 89:17 92:15 103:20 104:9,17 107:11 115:24 123:5 129:20 136:10 138:12 139:5,9 145:1,22 145:25 151:16 152:1 153:9 155:13 157:10 162:19 163:14 166:1 186:3 188:5 189:4 193:18 194:1,16 198:24 229:4 230:13 231:18 232:8,20 234:24 237:22 238:8,14 243:21 245:10 246:22 247:6,16 248:10 251:6 253:13,23 254:16 255:8 262:14 266:11,16 267:3,4 270:6 272:4,15,17 273:12 kulhman 123:7 kyle 2:8 7:15 44:20 49:5 109:25 124:11 <hr/> L <hr/> lab 63:6 69:6,12	95:3 109:18 112:19 120:18 121:18 129:8 143:10 185:5 label 17:11 18:1 26:19 labeled 64:24 labor 17:24 laboratories 60:11 laboratory 53:7,13 53:15 labs 53:5,6,7 79:10 230:5 236:2 lacking 74:13,24 landing 32:19 landscape 17:15 language 59:7 61:1 89:10 117:12 138:4 152:2,20 153:16 154:2,23 155:9 laptops 172:9 lara 172:13 laracuenta 172:14 172:15 large 50:25 60:20 74:25 222:11 225:25 274:2 largely 92:10 larger 202:9 largest 53:14 larry 23:21 166:23 185:18 207:12 209:19 216:1 252:22 las 141:12 201:9 lasted 174:5 latent 243:19 latest 242:10 lathrop 3:5 lathropage 3:10 latitude 57:11 laughed 196:2 launched 250:6 260:3 law 151:5,7,13	154:3 155:12 246:18 lawrence 2:18 185:25 laws 150:15 151:25 154:12 lawsuit 195:7 lawsuits 245:25 246:11 lawyer 154:22 155:6 163:8 lawyers 94:8,9 laymans 67:15 lddeutsch 2:24 lead 65:14 98:10 100:7 187:21 188:2 199:4 200:12 leadership 82:22 leading 26:16 32:17 145:4 leads 27:18 leak 101:4 243:20 247:14 leaks 203:22 212:7 246:20 247:3 263:11,12 learn 98:20 learned 126:4 159:25 187:6 learning 162:6 learnings 160:6 260:4 leased 73:5 leasing 226:21 leave 21:9 111:5 195:20 leaves 237:25 lebanon 5:16 40:25 72:25 112:15 114:13 120:20,24 122:13,24 129:12 158:15 172:12 190:15 225:6 232:14 264:20 265:3
---	---	---	---	--

led 26:13 187:8 190:25 241:2	level 11:16 59:1 102:24 111:25 115:9 121:20 127:18 142:16,17 142:22,24 175:9 175:11,15,22 188:23 189:2,14 204:15 205:8 217:22 219:16 245:8 255:4 260:11	linx 176:18 180:12 180:17 181:7,25 182:4,5,11,20 183:2 184:3 192:18 208:9 212:2 214:7,8,11 214:14,15,17,19 214:21 215:22 216:17,19 217:5 217:13,17 218:12 218:17,22 219:7 219:11 220:7,7,18 221:12 222:10 224:8,10,16 269:6 269:16 270:12,16 270:17	123:23,24 124:5 124:10,16,19 lists 210:8 lite 2:9 litedepalma 2:13 lithia 210:16 litigation 195:1,2 246:3,6 little 18:22 21:6 32:1,3 37:21 42:21 52:9 59:16 67:1,2 70:22 75:1 75:7 81:23 85:17 91:19 108:8 109:7 114:7 126:6 127:20 129:17,17 158:2 177:15 186:13 192:17 242:20 251:25,25 262:22	215:14 218:25 219:3 231:12 234:19 265:9 longer 39:15 49:25 55:15 71:13 115:1 122:20 173:3 217:2 228:3 longterm 33:24 look 25:22 54:17 57:21,22 65:2 95:18 98:18 101:19 107:20 117:13 125:22 128:15,18 130:5,8 130:9 144:20 152:22 153:25 158:4 166:16 167:10 171:6,10 183:2 185:21 189:11 197:8,12 199:19,22 201:5 205:20,25 207:13 207:19 209:20 212:24 216:10,14 218:8 220:24 221:4 222:1,7,19 224:20,23 229:6 229:10 231:2 236:22 238:19 239:16,20 241:22 241:25 243:25 244:6 245:8 247:7 249:18,22 251:11 251:17 252:8 254:24 255:22 256:1,23 259:13 259:18 260:23 262:24 264:17 265:11,13
lee 224:3,3	levels 115:19 189:20 253:1,6,7 253:16,19 254:5	list 68:25 158:21,23 202:22	242:20 251:25,25 262:22	265:11,13
left 15:19 18:24 33:5,6 58:22 65:2 85:9,11 103:17,22 103:25 104:7 110:21 132:24 149:25 163:2 168:6 173:14 194:22 195:18 197:1 199:14 207:8 227:17 231:11 243:24 269:20,21	lewknor 134:10	listed 57:8 65:10 71:8 77:17	live 142:10 lived 149:18 168:12 183:25	longer 39:15 49:25 55:15 71:13 115:1 122:20 173:3 217:2 228:3 longterm 33:24 look 25:22 54:17 57:21,22 65:2 95:18 98:18 101:19 107:20 117:13 125:22 128:15,18 130:5,8 130:9 144:20 152:22 153:25 158:4 166:16 167:10 171:6,10 183:2 185:21 189:11 197:8,12 199:19,22 201:5 205:20,25 207:13 207:19 209:20 212:24 216:10,14 218:8 220:24 221:4 222:1,7,19 224:20,23 229:6 229:10 231:2 236:22 238:19 239:16,20 241:22 241:25 243:25 244:6 245:8 247:7 249:18,22 251:11 251:17 252:8 254:24 255:22 256:1,23 259:13 259:18 260:23 262:24 264:17 265:11,13
lefthand 222:21	liabilities 259:2	listing 34:19,25 35:3 49:17 50:7 54:2,3,8,13,15 55:22,25 56:2 57:4,12,13,25 59:4 60:23 61:15 62:5 63:20 64:18 65:14,18 68:4,4 68:12,19,23,24,24 69:5,11 70:2,3,4 70:14 71:4,12,13 71:17 76:13,18,21 76:23 77:3,6,6,22 78:2,7,15,18,25 79:1 91:22 104:23 124:1,2 138:15	llc 2:9 llp 3:5 local 211:2 213:19 localities 248:24 located 20:23 72:25 160:25 168:8 location 221:14 232:1 locations 231:17,20 268:10,11 locust 2:20 logger 111:5 logistics 82:22 long 13:13 14:8,25 16:4 17:1 19:16 19:25 24:25 31:13 32:7 66:8,8 76:22 87:1 98:5 105:2 105:24 114:24 121:1 128:17 148:25 162:17 184:18 187:6 191:13 211:7	looked 115:15 215:13,14 217:21 238:16 looking 28:15 35:12 50:20 88:12 88:24 92:18 96:9 101:5,17 102:2
legal 108:20 117:2 154:16 155:17,21 163:10 195:8 217:25 256:16 258:19 273:3	liability 96:13 150:15 151:5,13 151:25 154:12 155:12	list 68:25 158:21,23 202:22	llc 2:9 llp 3:5 local 211:2 213:19 localities 248:24 located 20:23 72:25 160:25 168:8 location 221:14 232:1 locations 231:17,20 268:10,11 locust 2:20 logger 111:5 logistics 82:22 long 13:13 14:8,25 16:4 17:1 19:16 19:25 24:25 31:13 32:7 66:8,8 76:22 87:1 98:5 105:2 105:24 114:24 121:1 128:17 148:25 162:17 184:18 187:6 191:13 211:7	looked 115:15 215:13,14 217:21 238:16 looking 28:15 35:12 50:20 88:12 88:24 92:18 96:9 101:5,17 102:2
legislation 187:20	liable 152:16	listing 34:19,25 35:3 49:17 50:7 54:2,3,8,13,15 55:22,25 56:2 57:4,12,13,25 59:4 60:23 61:15 62:5 63:20 64:18 65:14,18 68:4,4 68:12,19,23,24,24 69:5,11 70:2,3,4 70:14 71:4,12,13 71:17 76:13,18,21 76:23 77:3,6,6,22 78:2,7,15,18,25 79:1 91:22 104:23 124:1,2 138:15	live 142:10 lived 149:18 168:12 183:25	looked 115:15 215:13,14 217:21 238:16 looking 28:15 35:12 50:20 88:12 88:24 92:18 96:9 101:5,17 102:2
lehman 5:4 199:21 200:20	life 205:4,6,9 255:17,18	list 68:25 158:21,23 202:22	llc 2:9 llp 3:5 local 211:2 213:19 localities 248:24 located 20:23 72:25 160:25 168:8 location 221:14 232:1 locations 231:17,20 268:10,11 locust 2:20 logger 111:5 logistics 82:22 long 13:13 14:8,25 16:4 17:1 19:16 19:25 24:25 31:13 32:7 66:8,8 76:22 87:1 98:5 105:2 105:24 114:24 121:1 128:17 148:25 162:17 184:18 187:6 191:13 211:7	looked 115:15 215:13,14 217:21 238:16 looking 28:15 35:12 50:20 88:12 88:24 92:18 96:9 101:5,17 102:2
lends 143:4	light 188:11	listed 57:8 65:10 71:8 77:17	llc 2:9 llp 3:5 local 211:2 213:19 localities 248:24 located 20:23 72:25 160:25 168:8 location 221:14 232:1 locations 231:17,20 268:10,11 locust 2:20 logger 111:5 logistics 82:22 long 13:13 14:8,25 16:4 17:1 19:16 19:25 24:25 31:13 32:7 66:8,8 76:22 87:1 98:5 105:2 105:24 114:24 121:1 128:17 148:25 162:17 184:18 187:6 191:13 211:7	looked 115:15 215:13,14 217:21 238:16 looking 28:15 35:12 50:20 88:12 88:24 92:18 96:9 101:5,17 102:2
length 102:5 172:22	liked 95:16	listings 56:17 57:13 60:17 64:10,20 66:6,18 68:9 69:18 70:8,10,19 70:20 71:19 72:14 76:21 77:7,8,11 77:24 78:3 82:6 84:21 85:2 91:21 91:23 92:4,4,7 104:19 123:17,18	llc 2:9 llp 3:5 local 211:2 213:19 localities 248:24 located 20:23 72:25 160:25 168:8 location 221:14 232:1 locations 231:17,20 268:10,11 locust 2:20 logger 111:5 logistics 82:22 long 13:13 14:8,25 16:4 17:1 19:16 19:25 24:25 31:13 32:7 66:8,8 76:22 87:1 98:5 105:2 105:24 114:24 121:1 128:17 148:25 162:17 184:18 187:6 191:13 211:7	looked 115:15 215:13,14 217:21 238:16 looking 28:15 35:12 50:20 88:12 88:24 92:18 96:9 101:5,17 102:2
letter 4:19 5:10,13 50:23 95:22,22 105:20 114:16,18 138:22,23 152:4 152:17 153:1 154:11,18,19 155:11,15,18 192:22 239:19,21 239:24 240:2,5,23 241:7,10 242:3,21 242:22 256:25 257:6,10,11,17,23 258:6 267:19,21 267:25 272:18 273:2,4	limit 70:21 108:21 113:5 140:6 147:9 limited 96:7 153:17 154:6 230:15 limits 98:4 147:1 149:3 161:21 255:3	list 68:25 158:21,23 202:22	llc 2:9 llp 3:5 local 211:2 213:19 localities 248:24 located 20:23 72:25 160:25 168:8 location 221:14 232:1 locations 231:17,20 268:10,11 locust 2:20 logger 111:5 logistics 82:22 long 13:13 14:8,25 16:4 17:1 19:16 19:25 24:25 31:13 32:7 66:8,8 76:22 87:1 98:5 105:2 105:24 114:24 121:1 128:17 148:25 162:17 184:18 187:6 191:13 211:7	looked 115:15 215:13,14 217:21 238:16 looking 28:15 35:12 50:20 88:12 88:24 92:18 96:9 101:5,17 102:2
letterhead 257:1	linda 1:3 2:4	listings 56:17 57:13 60:17 64:10,20 66:6,18 68:9 69:18 70:8,10,19 70:20 71:19 72:14 76:21 77:7,8,11 77:24 78:3 82:6 84:21 85:2 91:21 91:23 92:4,4,7 104:19 123:17,18	llc 2:9 llp 3:5 local 211:2 213:19 localities 248:24 located 20:23 72:25 160:25 168:8 location 221:14 232:1 locations 231:17,20 268:10,11 locust 2:20 logger 111:5 logistics 82:22 long 13:13 14:8,25 16:4 17:1 19:16 19:25 24:25 31:13 32:7 66:8,8 76:22 87:1 98:5 105:2 105:24 114:24 121:1 128:17 148:25 162:17 184:18 187:6 191:13 211:7	looked 115:15 215:13,14 217:21 238:16 looking 28:15 35:12 50:20 88:12 88:24 92:18 96:9 101:5,17 102:2
letters 96:19,20 97:6 172:10 257:25	line 16:3 48:18 60:19 66:11 99:22 117:23 140:19 165:4 179:1 186:15 191:17,25 192:1 210:9 223:6 223:12,14,23 224:2,12 240:6,21	listings 56:17 57:13 60:17 64:10,20 66:6,18 68:9 69:18 70:8,10,19 70:20 71:19 72:14 76:21 77:7,8,11 77:24 78:3 82:6 84:21 85:2 91:21 91:23 92:4,4,7 104:19 123:17,18	llc 2:9 llp 3:5 local 211:2 213:19 localities 248:24 located 20:23 72:25 160:25 168:8 location 221:14 232:1 locations 231:17,20 268:10,11 locust 2:20 logger 111:5 logistics 82:22 long 13:13 14:8,25 16:4 17:1 19:16 19:25 24:25 31:13 32:7 66:8,8 76:22 87:1 98:5 105:2 105:24 114:24 121:1 128:17 148:25 162:17 184:18 187:6 191:13 211:7	looked 115:15 215:13,14 217:21 238:16 looking 28:15 35:12 50:20 88:12 88:24 92:18 96:9 101:5,17 102:2
	linear 62:3			
	lines 159:19			
	linking 27:24 133:8 237:14			

114:3,5 122:3,5 129:1,8 143:16 153:17 161:11 164:1 196:4 231:13,24 239:7 looks 70:11 170:15 204:2 219:6 221:15 222:25 223:21 224:21 241:14 244:16 252:10 262:21 265:23 loop 49:8 lori 213:4 217:24 los 201:17,24 202:5 202:9,11,19 206:6 206:16,22 207:9 lose 76:18 77:3,21 78:15 79:1 231:12 262:7 losing 17:23 39:3 46:3 76:21 77:12 78:3 lost 76:12 174:24 lot 33:24 40:20 49:6 52:13 61:25 67:14 67:17 85:17 86:4 90:14 92:19,23 100:4 102:7 109:18 117:10 118:19 121:17 126:8 128:10 137:19 141:21,25 142:9,13,15 144:4 152:21,23 155:17 155:17 157:23,25 159:16,16,22,23 178:4,7 179:6,19 184:13 189:20 191:23 192:15,24 198:10 203:25 208:12 209:3 210:5,6,15 211:18 212:17 214:10,22 216:25 242:17 245:13,14 246:3,3	246:11 247:9 248:13,14 253:25 266:12 louisiana 210:21 louisville 6:4 195:22,23 low 67:9 187:20 234:2,3 253:19 lower 31:21 117:19 lowes 191:8,14,14 191:21,25 192:13 lowest 31:14 lowlead 187:15,22 188:1 lunch 123:5,14 lyondell 132:8 <hr/> M <hr/> m 3:4 6:6 273:14 magistrate 1:14 mail 203:11 221:10 222:4 259:16 261:1 mailing 240:8,11 main 32:5 46:11 125:25,25 159:20 177:3,22 191:4 266:22 maintain 61:15 62:5 68:18 82:6 89:15 91:20,22 maintained 123:22 209:9 maintaining 68:22 92:10 123:18 124:5 maintains 124:16 maintenance 84:20 123:16 major 12:5 74:13 178:16 219:5 245:4 majority 253:1,8 making 33:12 40:22 43:18,22 54:14,15 78:22	80:17 89:8 156:13 158:14 184:9 187:24 227:8 248:18 262:5 malm 22:8,9 56:19 168:16,19,21 169:4,10 173:23 218:4 malms 173:24 175:15 malnar 261:14 manage 51:9 56:12 management 21:14 82:25 84:1 163:1 174:4,14 manager 13:11,18 14:2,7,8,12,20,21 15:1,2,11 16:12 17:1 19:1,3,12,16 19:20,22 20:4,18 20:19 21:19 22:6 22:18,21,23 24:1 24:8,9,14 36:15 37:9,13 45:14 51:15 54:23 56:10 58:15 66:14 71:18 71:23 73:21 76:6 76:16 80:19 81:23 82:16,21 83:9,13 83:14,15,16,20 85:16 95:8 99:13 108:13 135:25 137:6,7 155:22 157:21 160:22 167:12 168:11 171:4 172:1,12 190:13,16,24 191:1,7 194:23 199:14 209:11 213:19,20 220:5 250:3 managers 16:2 83:3 160:13 173:17 managing 224:9 manifold 206:13,13	manual 100:9 140:14 146:24 161:23 242:1 248:2 manuals 140:8 manufacture 150:22 182:4 manufactured 8:10 26:1 29:20 65:9 104:3 144:24 145:20,23 151:6 151:13 162:9 165:1 257:13 manufacturer 18:12 36:13 41:24 99:6 107:5 134:2 198:9 234:18 242:24 245:14 manufacturers 57:11 98:6 147:8 148:18 245:15,21 250:12,15 261:14 manufacturing 15:5 16:14 20:8 20:10,14 21:2 27:22 29:4,17,23 30:5 34:15 40:25 42:17,23 63:12 73:2 80:11 83:2 83:14 95:5,5,6 96:3,7 99:19,21 103:14,18 107:3 116:9,20 117:16 117:24 156:10 168:7 173:20 177:3 185:7 190:17 204:2 234:21 241:11 map 141:20 159:3 185:13 234:1 marc 172:12 march 5:7 48:2 50:22 137:1 139:25 205:22 218:11 259:16 margin 60:20	marginally 64:5 mario 168:10 mark 48:20,23 49:3 49:21,24 50:3 59:14 70:12 90:18 91:10 172:18,23 173:5 197:10 198:10 201:4 205:22 206:6 218:23 220:22 marked 47:21 48:1 59:18,21 107:14 130:15 136:22 150:2 153:14 163:23 167:9,13 171:7,15 197:9,14 199:19,23 201:3,5 201:7 203:6,7 204:10 205:14,20 207:13,21 212:3 216:11,16 218:8 218:14 220:23,24 222:1,5,18,19 224:20 225:1 229:7,13 236:23 238:20 239:16,22 244:1,9 249:18,25 255:23 256:21,23 259:11,14 260:24 261:4 262:24 263:5 264:18,24 265:11,15 267:8 market 17:10,13,14 17:23 30:7 37:10 44:6 61:13 82:24 87:10 92:10,14 99:3 124:6,15 202:15 marketdriven 44:8 marketing 14:7,8 14:12,19 20:7 26:22 37:6,8 61:8 61:11 107:24 160:11 173:20 195:24 210:9 211:19 218:23
---	--	---	---	--

226:10 240:18 242:6 260:13 marketings 211:11 marketplace 31:15 31:20 60:25 87:20 93:19 markets 70:17 marry 198:2,4 marshall 180:5,7 martin 24:17 37:14 37:18 169:24 170:2 176:1 martins 175:21 mason 21:4,5 42:16 169:7 218:23 mast 171:20 masters 11:18,21 12:14 13:22 14:4 14:5 matchek 83:14 material 27:23 33:13 52:6 106:9 128:17 132:8 144:23 145:15 146:5 154:5 223:6 223:17,20 228:12 228:16,18 materials 104:20 228:21 matt 213:18 261:11 matter 7:16 152:16 165:6,9 274:8 matters 49:10 51:20 66:5 84:25 85:8 matured 135:20 mcactee 257:2 mccoy 1:4 2:6 4:16 4:21 81:2,7 107:21 108:11 164:19 200:23 213:4 221:1 234:13,20 244:5 mclaughlin 1:16 2:16 mcmahon 1:3 2:4	meadow 1:15 2:15 4:23 166:24 167:9 167:13 170:14 171:7,15 173:10 194:19,23 197:9 197:14,21 199:20 199:23 201:5,7 205:14,16,17,21 207:14,21 212:3 213:1 216:11,16 218:9,14 220:23 220:25 222:2,5,17 222:18,20 224:20 225:1 229:7,13 232:12 235:16 238:20 239:17,22 242:21 244:1,9 249:19,25 251:11 255:23 256:21,24 259:14 260:24 261:4 262:25 263:5 264:3,18,24 265:12,15 266:10 meadows 167:15 171:7 199:22 203:7 204:10 205:23 207:15,17 213:2 216:12 218:10 222:21 224:21 233:18 234:23 236:23 239:18 244:2,22 249:21 256:24 260:25 263:1 264:19 265:12 mean 28:3 31:1,19 40:18 41:18 42:16 47:6 53:3,9,14,25 54:1,2,14 55:9,20 56:12 57:22 58:10 59:4 63:19 69:24 70:6,13 73:12 76:17,22 77:4,12 81:23,25 84:20 86:22 88:1 89:6 90:9 91:3 93:25	94:10 96:14,14 103:21 104:11,21 104:25 105:15 106:4 109:17 112:10 115:14 122:14 126:9 127:2 135:24 139:11 141:6,19 142:11,12 154:16 155:16 156:2,18 156:22 158:22 163:3,15 169:14 174:21 175:25 177:5 196:3 198:25 202:24 205:11 219:18 223:8 224:25 236:7 246:25 249:4,11 252:16 258:23 260:12 268:17 273:2 means 104:22 148:11 188:1 223:7 254:1 264:8 meant 166:13 202:7 219:4 measure 13:3 67:19 111:16,25 260:10 measuring 67:18 mechanical 177:6 177:10 mechanism 115:22 193:14 mechanisms 122:1 242:8 medders 1:3,4 2:5 2:5 meet 35:7 55:12 60:18 61:20 79:12 82:23,24 84:12 103:17 104:6 105:4 138:18 meeting 13:4 54:5 79:2,5 83:1,16 85:1 125:12 138:21 169:18	174:14 184:2 231:22 266:18 meetings 36:9,10 36:10 51:19 72:12 79:14,17 82:17,20 83:8,10,12,23 84:2,4,18 90:25 170:3 174:5 meets 34:3 54:19 138:2,8,18 207:4 238:6 241:17 member 183:24 memo 63:9 81:2 218:12 memorialized 90:22 93:23 memory 23:10 189:18 244:15 menards 38:1,4,7 191:1,12,21 261:12,16 262:1,5 mention 88:13 90:23 206:24 mentioned 8:21 66:22 89:24 91:20 96:19 97:1,3 100:12 101:6 103:12 105:6 111:1,23 116:25 142:21 164:18 180:4,12 210:10 211:25 233:5 245:20 251:2 mentioning 206:16 mentions 48:17 merged 39:8 message 193:24 met 33:14,18 66:19 82:25 103:7,13,14 103:25 104:19,19 139:14 168:23 183:20 188:6 235:1 239:10 metal 120:25 121:1 121:4 179:18 213:23 215:12	216:2 254:2 metallurgist 185:19 185:23,25 236:18 method 27:16,19 28:1,6,9 72:16 214:20 methods 98:21 metro 159:15 michael 1:3 2:4 michelle 171:20 microscope 106:10 microscopes 185:21 middle 1:12 202:21 226:17 238:21 midwest 268:25 269:1 miles 148:24 million 62:13 189:8 189:13,16 197:4,6 197:7 220:1 247:9 253:2,5,7,8 millions 62:14 mind 51:12 minimal 108:19 117:2 minimum 60:18,21 61:20 126:20,22 127:2,3,5,12 138:8 139:1 239:10 257:22 262:20 minnesota 173:18 198:5,6,7,15 199:6,7 225:19 minute 47:23 189:12 221:20 mis 98:8 mischaracterizing 181:6 misinstallation 118:20 mississippi 210:21 missouri 3:7 168:9 232:14 mistake 184:11
--	---	---	--	--

mistakes 111:12	municipal 148:13	needed 39:15 44:7	24:2,10 25:25	143:22 144:2,7,9
mitigate 217:15	252:25 253:3	51:4,25 62:5	28:16,19 29:3,3	144:24 145:23
mobile 212:5,11	municipalities	75:18 87:21 92:12	29:10,17,20,23	146:4 148:4
232:15,19,22	141:23,25 142:1	93:20 109:4 132:4	30:5 31:7,7,23	151:11,13,17
233:5,8,9,10	159:24 248:16	135:6 158:15	33:3,19,21,25	152:20 153:6,22
mode 100:24	249:2,15	171:4 172:8 182:9	34:4,13 35:8,21	154:16 155:25
143:16	murray 176:24	193:1 231:8 268:4	36:19,23 37:16	156:13 158:21
modest 85:22	177:17	needs 57:2 93:1	38:7,9,20 39:6,8	160:10,19 161:3
molecular 72:20		206:16 245:6	39:12,16,19 40:2	161:16,18 162:18
molecules 27:19,25	N	negatively 58:4	40:11 41:5 42:3	162:22 163:13
28:2	name 7:15,22 26:3	nelson 218:19,20	42:13,22 43:6,8	165:1,24 167:6
moment 188:21	26:4,6 27:8 28:9	net 2:24	43:19 44:10,12	169:24 171:3,12
243:15 272:19	33:1 37:14 79:24	never 35:16 42:18	45:25 46:9 48:8	171:20 173:2,3,14
money 175:10	80:6 144:25	55:10 58:1 63:6	51:3 52:24 53:2	176:9,15 182:1
217:1 234:15	147:15 173:8	70:9 76:23 81:5	53:21,24 54:4,7,9	183:2,2,14 184:22
monica 1:3 2:4	176:20 196:8	116:14 119:21	57:16 58:1 59:9	185:1,3 186:1,22
montague 2:19	264:13 265:22	120:4 147:5 157:9	61:20 63:11,25	188:3,14,15 189:2
month 83:1 84:2	267:4	193:5 196:23	64:8 70:23 72:2	189:22 190:2
168:23,24 169:15	named 27:6 107:22	236:4 241:24	72:23 73:17,17	191:10,13,25
169:17,17,22	164:16	245:19 264:12	76:3,11 77:1,19	193:16 194:21
174:6 232:4	names 23:7,15	nevertheless	78:2,24 79:9 80:9	195:18,20 196:15
monthly 118:7,8	79:20,22	106:15	80:9,17 81:3,10	196:20,22 198:3
169:10	narrow 129:4	new 1:1 14:13,14	81:15,24 85:9	198:14 199:10
months 87:3 217:2	nashville 1:13	20:6 39:2,2 66:2,8	86:3,5,8,14,20	202:23 204:13,17
224:14 270:24	nathans 189:24	87:15,17 98:17	88:4 89:14 91:22	205:11 207:1,6
morning 7:13,14,19	national 19:3,12,16	109:1 111:1,2	92:12 94:12,22	210:2,13,15,24
134:18 136:21	147:14 148:6	171:3 182:9 190:5	95:3 96:12 98:24	211:12,21 212:6
mornings 24:21	166:25 191:1,6	211:15 221:25	99:17 100:21	220:8,18 223:10
motivation 98:23	194:20	226:24 248:3	101:13 102:11,19	223:11 227:3,5,17
move 20:22 24:6,11	native 207:18	250:5 259:25	105:9,18,20	227:22 228:2,4
43:16 241:2	natural 40:20	260:8	106:13,19 107:8	229:12 230:18
moved 73:6 122:24	158:9	newer 265:6	107:25 109:9	231:15 233:1,13
190:14 195:21	nature 228:5	newness 64:18	110:10,16 111:2	234:13 239:19
moving 196:11	near 159:21 177:1	65:19 66:7	112:3,12 113:12	241:2 243:2 244:5
226:17,24	necessarily 23:10	news 48:18	113:24 114:17,18	244:17,22,25
mrad 234:5	58:13 77:12 196:4	nextpure 26:7,8,9	116:25 117:2	245:7,9 246:20
mrk 250:10,11,13	243:17	31:9 197:1,2	118:1 119:1,7,12	247:3,7,11,13,22
265:20	necessary 58:19	234:4	120:7,8,13 121:14	247:23,25 251:20
mrk73 265:18	126:17 221:16	nibco 1:7,19 3:3	121:25 123:17,19	253:11 254:25
multiple 57:12	230:23	5:10,18,19 7:16	124:4,16 125:9,19	256:7,16 257:1,15
69:18 76:21 77:7	neck 217:16	8:5,10,21,25 9:11	126:1 128:2,5,8	257:17,19 258:16
77:11,17 91:22	need 51:1,16 68:14	10:6,8 15:8,9,22	128:21 131:1,15	258:17 259:6,6
92:3,6 123:17,18	68:23 92:18 98:21	15:25 16:13,14,17	133:9 134:5	260:10 261:13
123:23 124:5,10	133:23 161:2	16:22 17:6,15,25	135:21 136:6	264:10 265:7
124:16,19 214:14	162:24,25 166:6	18:3,24 19:4,21	138:2,7 139:21,25	266:8,15 267:5
245:15	200:17 245:2	21:9,16 22:12	140:8 141:2	269:24 270:1,13

272:23,25 273:9 nibcos 30:23 53:18 57:15 70:9 74:10 85:10 90:16 94:8 102:17 103:12 116:23 120:9 124:5 126:25 140:14 141:17 148:5 153:16 167:1 192:13 196:24 219:13,21 219:23 225:10 234:18,21 236:14 241:22 248:8 258:1 259:7 260:17 262:7 266:8 nibso 160:8 nice 209:11 night 160:4 nightmare 206:23 209:16 nobodys 212:14 nodding 11:1 non 155:5 nonpex 91:23 nontechnical 59:6 normal 56:5 normally 174:10 204:19 253:21 north 144:1 145:17 146:2 149:7 158:18 159:13 242:24 northeast 160:12 notable 141:17 158:17 159:9 notably 149:4 161:4 notary 6:8 274:23 noted 60:17 notes 25:10 139:19 166:17 222:22,23 223:14 notice 63:5 161:8 166:9 194:13	195:7,12 248:8 noticed 180:19 notices 195:6,10 noticing 111:12 november 167:24 197:11 252:3 nowadays 168:5 nows 123:8 nrt 48:14 nsf 48:14,19,20,23 49:3,11,20,24,25 50:3 53:4,25 54:1 54:3 55:3,10 58:14 60:17 62:20 63:20,21 68:24 70:15 78:15 79:1 80:10 81:3 92:4 124:1 138:7,15,17 138:21 139:12 nsfs 34:18 number 27:1 38:16 39:24 40:4 44:22 45:7,9,20,22 48:3 50:2 53:4 77:13 85:14 86:5 94:22 94:25 95:1 99:20 109:21 118:10 119:20,21 131:21 131:24 132:18 137:24 139:18 140:24 146:8 156:12 178:13 181:8 199:13 209:5,16 216:12 216:22 220:9 222:4,20 224:21 233:19 236:12 247:19 251:19 256:25 259:8 262:25 269:25 270:14,20 numbered 137:24 numbers 45:5,8 113:8 171:8 184:19 192:25,25 197:11 205:23	207:15,17 213:1 214:22 218:9 221:2 222:2 229:7 239:18 244:1 249:20 260:25 264:19 265:12 270:25 numeric 181:7 <hr/> O <hr/> object 29:6 33:4 34:16 35:24 36:5 39:10 41:10 42:8 50:1,10 51:6 53:8 54:10 55:8,18 56:22 58:24 61:3 61:22 62:11 63:18 64:14 65:21,25 66:16 69:15 71:15 72:10 73:24 74:19 76:9 80:20 84:19 89:17 92:15 99:22 103:20 104:9,17 107:11 111:16 115:24 129:20 136:10 138:12 139:5,9 145:1,22 145:25 151:16 152:1 153:9 155:13 162:19 163:14 166:1 186:3 188:5 189:4 193:18 194:1,16 198:24 229:4 230:13 231:18 232:8,20 234:24 237:22 238:8,14 243:21 245:10 246:22 247:6,16 248:10 253:13,23 254:16 255:8 262:14 266:11 272:4 objection 194:3 266:16 obligation 144:20	observed 159:12 obtain 111:2 obtained 64:6,17 87:16 obvious 105:25 106:7 118:20 156:17 obviously 24:23 43:24 46:17 61:16 69:24 77:5 119:25 120:6 154:16 182:8 238:18 occasion 170:1 occasionally 167:3 occur 42:25 55:10 113:24 127:22 153:3 occurred 33:2 43:1 43:5 68:8 71:20 76:16 84:2 113:24 116:17,18 120:4 128:7,10,20 129:16 131:11 162:16 187:4 269:3 occurrence 215:23 occurring 75:4,13 75:15 82:5 112:24 144:8 162:8 occurs 114:12 128:2 october 4:17 5:5,6 5:13 131:4 171:10 171:12,18 201:8 203:11 256:25 od 201:22 offer 26:20,21 30:9 31:16,21 offered 12:16 196:2 offering 44:4 87:17 office 25:17 39:25 163:4 official 108:22 officially 190:11 offshore 180:10,11 oh 22:19 29:12	39:23 43:10 80:1 96:22 97:10 102:1 112:16 118:7 127:19 147:15 150:6 164:7 166:12,15 172:4 179:17 180:7 181:21 186:9,13 190:23 192:4 196:23 212:25 214:22 236:8,25 241:20 273:10 ohio 41:1 72:25 173:6 okay 7:17,20,24 8:4 8:12,16,24 9:10 9:18,24 10:12,19 10:24 11:3,4,6,9 11:10,15,16,20 12:1,12,23 13:5 13:13,15,18,21 14:8,25 15:4,10 16:6,17,20 17:25 18:11,16,22,25 19:5,22 21:1,5,20 22:9,23 23:9,24 24:3,23 25:13,15 25:18,24 26:14 28:5 29:10,15,20 30:1 31:2,16,23 32:14 33:7,21 34:8,24 35:21 36:14,19,22 37:7 37:15,21 38:4,17 39:8 40:5,14,24 41:5,12 42:4,12 43:3,19 44:17,19 44:25 45:3,13,20 45:23 46:21 47:4 47:19,25 48:9,13 48:17 49:2 50:20 52:9 53:1,6 54:22 56:3 59:14,17,19 59:25 60:5 63:2 63:16,23 64:20,23 65:8,13 67:20
---	--	--	--	---

68:17 69:10 70:22 71:7,10,14 73:9 74:4 75:9 79:19 81:14 82:4 83:7 83:11,19 84:1,7 85:1,14,18,21 86:6,18,25 87:15 88:17,23 91:10 92:1,8 93:2,5 94:3 94:18 95:19 96:6 99:8 100:12,19 101:6 105:3,13 107:12,15,16,20 108:1,11,15,18 109:9,13 110:2,8 110:13 111:23 112:20 113:3,8 114:11,22 115:9 116:11 118:4,13 119:4,15,23 122:19 123:12 124:3,12,22 126:24 129:25 130:13,16 131:6 131:18 132:12 133:1 136:23,24 137:14,23 139:16 140:24 144:1,7 145:10 147:21 148:3,10 150:13 153:1,2,12,15,25 154:21 156:21 157:10 158:16 163:21 164:7,13 164:18 166:16,18 166:20 167:8 168:1,8,15,18 169:2,9,23 170:1 170:8,14,18,21 173:10,22 176:12 177:4,15,20 179:12 180:4 182:23 186:19,20 186:25,25 188:3 189:22 191:10 194:25 195:4,12	195:15,17,20 196:6,8,10,21 197:8,15,16,20 198:16,18,22 199:10,19 200:2,3 200:6,24 201:3,12 201:13 202:20 203:13,15,19 204:4 206:3,4,24 207:5,22,23 208:7 208:20 212:24 213:7 214:6 216:4 216:7 217:11 218:3,15,16 219:12 220:15,22 221:6 223:3,5,9 224:2,20 225:3,9 225:16,21,23 226:5 227:3,12,18 227:21 228:1,17 229:2,6,14,15,18 231:15 232:24 236:13,25 237:3,7 237:11,20 238:24 239:16,24 240:7 241:10 242:21 243:4,17,25 244:10,11,15,20 246:5 247:1,21 248:4,7 249:18 250:2 251:22,23 252:2 254:22 256:4,5 257:5,9 257:16,25 258:10 258:15,22 259:21 259:22,24 260:7 261:5,6,9 262:3 263:7,9,14,18 264:2,9,17 265:6 265:19 266:7,23 267:10 268:9 269:11,23 270:8 272:8,13 273:11 273:12 oklahoma 8:15 once 33:16 43:4,5,7	83:1 84:2 93:18 93:18 168:23,24 174:6 178:23 191:16 230:19 243:18 247:22 oneeighth 179:5 oneonone 93:4 onepage 216:11 222:20 224:24 256:24 262:25 ones 125:13 159:7 180:12 209:22 212:23 242:18 246:2 271:21 272:2,2,2 ongoing 10:8 online 34:18 onsite 101:21 106:18 opened 164:15 opening 202:2 operate 148:22 operating 5:16 55:15 148:8 168:22 169:2,18 170:6,9,15 173:23 174:2 190:3 222:23 264:21 operation 28:4 56:13 163:6 168:20 172:22 190:17 226:12 operations 21:2,21 39:17 148:13 172:12,19 242:14 242:14 opinion 234:19 opportunities 70:21 84:11,17 opportunity 47:18 192:5 195:23,25 opposed 36:24 option 48:19 49:20 131:6 132:22 133:14 240:15 options 132:5,9,14	132:14,20 orange 60:18 64:12 64:17 65:10,15 66:12 72:8 84:16 138:11 139:8 order 35:7 54:25,25 57:1 92:13 119:11 144:12 229:21 248:19 252:25 organic 109:13 organization 4:24 4:25 20:20 152:21 167:6,11 171:8,13 172:11 173:13 211:10 241:14 organized 209:12 original 60:16 77:21 93:16 157:20 210:25 originally 32:21 orlando 168:10 ought 75:4 121:21 130:7 135:11 231:21 outcome 10:4 105:19 outfit 163:3 outlets 191:11 outside 119:2 124:3 177:9 201:22 210:16 231:12 232:2,4 235:3 241:20 outsource 206:17 outstanding 208:16 269:21 oven 271:12 overall 30:23 86:3 overbent 106:1 129:2 overchlorinate 142:7 overkill 134:19 142:1 oversaw 20:5 overseeing 21:1,21	oversight 20:24 161:2 owens 164:16 165:8 165:23 166:11 owned 163:15 owner 258:3 ownership 38:25 owning 39:2 oxidated 9:18,23 106:4 115:20,21 116:1,8 oxidating 102:22 oxidative 116:18 118:18 143:25 229:22 230:12,21 232:25 234:22 oxidativetype 115:16 128:23 129:5 232:16 235:7
<hr/>				
P				
<hr/>				
p 2:19 137:18 273:14 pad 114:24 page 4:2,11 60:8,14 63:24 64:3,4,23 64:24 68:2,17 74:7 75:22,22,23 88:25 131:7 137:23 139:17 164:6 171:14 202:20,21 206:25 210:8 213:3 214:6 232:11,12 233:12 234:12 235:15 240:23 241:10 242:23 244:22 252:2,23 274:6 pages 251:19 252:8 paid 216:24 217:17 218:22 220:7 221:15,17 223:21 250:15 paint 173:7 paper 209:6				

papers 91:13	66:13 141:11	83:8 84:3,9,12	110:15,17 155:24	personally 36:3
paperwork 210:2	146:11 171:13	90:14 92:22 93:17	156:4	91:5 93:8 184:7
paragraph 48:17	208:11	95:25 96:15 114:2	perception 46:20	personnel 79:10
50:14,23 60:15	partner 33:16	114:22 121:3,18	46:21	81:17 244:25
68:3,5,7 138:1	211:6	121:21 122:17	perfect 179:22	pex 4:14 8:9,13,21
154:1 198:18	parts 13:3 158:19	125:16 128:17	perfectly 179:2	9:11 13:6 14:15
206:16,24 233:17	189:16 212:12	133:24 135:16	perform 4:18 33:21	15:7,23 16:8,10
235:5 242:22	253:2,5,6 268:24	137:8 143:2	110:10,16 157:19	16:25 17:6,9,9,10
parallel 211:11	party 54:8 57:3,18	146:18 152:10,18	255:4	17:13,23 18:1,10
parameters 241:5	58:7 60:24 66:18	156:18 157:7	performance 46:8	19:7,20,23 20:4,6
254:25	70:8	163:4,5,19 166:4	136:25 139:20,23	20:7,19,21,23
pareto 118:9	pass 53:22 55:5	168:1 172:10	141:1	21:2 22:1,6,18
parse 100:13	61:9 67:12 69:14	178:2 179:19	performed 35:7	24:4,14 25:25
part 24:10 40:18	234:5	182:19 184:8	67:6 69:2 72:22	28:5,11,12,13
49:2,8 58:19	passed 50:11 53:25	185:1,10 187:8	101:25 105:7	29:4,12 30:16,25
61:11,17 71:4	187:15,20	190:5 193:15	204:14	31:2 32:12,18
73:9,12 74:25	passing 89:19	198:12 200:16	performing 52:23	33:13,15,22 36:7
78:14 82:7 86:6	203:5	204:13 216:22,25	53:2 68:25 73:22	36:11,15 45:14
88:13 90:18 93:2	pat 172:25 173:8	222:4 226:11	172:1 174:12	51:15 54:23,25
110:2 112:11	pause 247:14	233:14 234:13	period 30:20 42:4	56:10,11 58:15
129:22,23 139:6	pay 12:16 182:6	235:11,16 236:18	45:10 62:14 82:4	60:10 64:9 66:14
146:9 152:21	214:2 222:13	238:17 239:15	85:21,22 86:2	73:21 76:4,6,7,13
162:22 170:24	payable 224:1	242:6 246:19,23	98:19 105:12	78:3 80:19 82:16
171:5 176:4,7	paying 157:6 182:6	246:24 247:2	111:8 145:14,17	85:10 88:11 90:7
184:22 187:17	208:20 235:2	248:7,17 252:3	149:16 151:20	91:22 95:8,9 98:1
188:4 189:8,12,13	payment 155:25	256:13 258:7	165:15 171:12,18	98:16 99:13,15,16
213:5 218:20	156:14,25 209:18	273:3	189:24 198:23	100:5,5 102:10
230:16 240:18,19	213:21 214:3	peoples 166:6	258:11	109:1 110:9,15
241:24 247:7	217:20 222:14	182:17	periodically 49:7	112:21 114:11,23
253:8,21 265:2,7	270:16	peperno 1:4,4 2:5,6	81:25	115:17 118:4,6,14
269:24	peculiar 168:9	perceived 247:25	permitted 154:3	118:17 119:9
participant 244:4	pending 11:13	percent 31:5 46:5	peroxide 27:16,16	120:7,13,19,22,23
participated 192:2	195:7 198:22	85:13,14,19,20	perpetuate 202:7	121:1,5,19,22
participating 244:3	penetrate 70:17	86:5 113:2 126:21	pers 99:15 102:10	122:1,25 123:19
particular 59:2	penetration 17:14	127:4,6,8 131:23	110:14,15 112:20	124:3 126:22
69:12 93:15 97:17	pennsylvania 2:21	131:23 132:4,13	112:23 113:11	132:20 135:16
104:6 118:23	people 22:17,19	134:13,15,16	118:2,10,14 119:6	137:13 141:1
128:3,6,21 132:24	23:3,7 39:1,14,25	135:1,7,11,12,14	155:23,25	143:11 144:19
138:20 148:11	43:18 46:19 48:3	135:18,23 136:7	person 21:21,24	147:5 148:15,22
158:22 166:7	52:3 53:16 58:23	136:17 140:6,19	22:5 72:19 83:23	150:12 151:17
181:11 200:17,24	59:3,6,6,8 66:5	177:12 181:10	103:9 121:25	155:23,24 158:9
208:10 209:3,10	67:13,13,16,16	188:2 199:3	122:5 158:6,10	160:8,11,13,15
210:5 211:7	70:10,18 71:16,17	219:20,21 236:12	160:23 200:20	167:1,6,12,22
213:11 214:1	71:20 72:1,1,6,7	242:24 270:15	207:14 244:16,17	168:10,20 170:15
222:24 239:8	79:11 81:25 82:2	percentage 31:3	personal 154:6	170:22 172:19
particularly 51:10	82:13,21,22 83:2	99:17 102:9,10	264:3,9	173:16,24 174:11

174:20 176:2,4,10 177:6 179:17,24 183:6 184:23 185:4 187:1,7 188:4 190:20,21 190:24 191:24 192:13 193:14,15 194:21 196:25 201:21,23 202:8 205:1,24 206:5 211:16,17 212:6 212:15 213:20 225:8,10 227:5 229:21 230:17 231:11 235:6,9 236:14 238:12 240:6 241:22 242:23 245:12,21 245:22 246:6,24 247:3 250:8 251:15 253:15 254:4 263:12 269:1 pexa 27:14,15 31:12 73:10 pexb 27:14,19 28:7 28:15,16,19,22 29:3,8,13,17,21 29:24 30:6,8,11 30:14,17,18,24 31:4,12,17,24 32:1 73:10 132:6 134:2 pexc 27:10,14,25 29:7,11,13 30:3 30:11,24,25 31:3 31:6,8,11,24,25 32:7,11 34:5,14 35:7,13,22 36:4 36:16 37:19 38:7 38:9,14 40:12,16 40:25 41:9,21 42:22 43:4 44:11 45:18 48:14 51:4 51:17 52:24 53:21 54:7 56:20 57:2	57:15 65:8 72:16 73:10,18,23 74:18 98:24 99:2,5 103:16 105:10 125:22 126:17 127:18 131:7 132:9 134:3 140:11 259:17 ph 141:8 142:22,24 143:5,20 189:1 philadelphia 2:21 physically 46:22 pictures 245:1 piece 86:2 95:2 100:20 102:6 105:25 112:15 114:4,23,24 115:1 128:19 129:8 130:6 137:12 240:20 258:3 pile 85:3 pipe 4:14 26:9 36:10 49:13 50:24 60:10 63:2,11,14 63:17 64:9 65:10 65:15 66:12 72:8 72:16 74:14,14,17 74:18 75:10,11 76:4 77:8 79:13 80:10 81:3,13 82:6 84:16 86:15 86:20,21 87:1,6 87:10,11 88:11 90:7,23 92:9 95:2 96:24 100:16 103:13 104:2,6 112:15 125:4 135:5,22 136:8 138:11 139:8,25 140:15 143:14 162:9 194:14 204:17,18,21 233:2 247:15,24 248:9 254:12,13 255:4,6,9,12 pipes 139:21	148:21 pipng 19:20 148:22 230:17 245:22 254:25 255:1 258:5,17 place 91:4 94:12 123:3 129:3 149:3 163:20 242:1 273:1 274:6 placed 100:8 places 158:24 placing 140:15 plains 225:19 plaintiff 9:10,14 plaintiffs 1:5,17 2:3 2:15 7:16 48:1 166:24 plan 26:22 184:6 planned 196:4 planning 132:10 plant 14:21,25 15:2 15:4,11 20:9,18 20:19,23,25 22:20 39:25 63:4 82:21 82:23 120:16 121:4 133:8 158:13 172:5,19 184:9 190:12 225:6,7 226:5,10 226:19 241:17 242:16 243:14,24 253:2,4,7,9 plastic 13:3 15:6 16:12,14,22,24 36:10 53:15 79:13 90:7,23 92:6 124:8 129:9 179:21 199:2,8,11 200:18 206:12 plastics 12:19,21 13:10 14:6,21 15:15,18,20,22 24:2,3,8,10 92:3 121:4,22 123:22 236:19 playback 186:8,9	plays 186:15 please 7:4 47:23 164:11 195:9 245:5 plisko 1:15 2:16 plumber 117:12 120:8 plumbers 32:2,11 92:20 93:4 94:2 98:20 100:10 111:12 128:14 177:24 193:10,17 208:13 209:21 plumbing 5:18 8:25 18:6,14 27:8 32:15 34:1 93:6 98:18 110:24 136:6 142:4 147:20,24,25 150:11 151:10 158:2,4 182:16 201:18 203:21 208:18 209:4 225:4 227:1 257:14 262:21 266:8 pocket 268:3 pockets 269:2 point 13:21 15:5 16:11 18:19 20:13 20:17 21:11 24:6 24:14 28:16 29:5 35:21 36:3,16 41:23 42:1,22 48:24 53:1 54:3 55:16 63:23 67:9 67:9 69:3 83:20 88:17,25 97:5 99:24 109:9 113:18 120:20 121:5,20 131:16 131:25 135:21 136:1 140:14 163:13 186:1 226:19 230:10 231:1 232:5	239:25 240:20 247:21 258:13 pointing 65:5 points 5:12 68:10 68:13 75:24,25 137:24 249:22 250:4,21 policy 78:19 258:10 259:3 273:9 political 12:5 poll 92:17 polling 93:2 poly 199:2,15,17 214:1 polyethylene 27:17 27:20 28:3 polymer 122:4 popular 177:14 199:18 202:1 population 159:17 159:23 portable 138:3 189:8 portion 85:10 position 76:3 115:3 157:6,18 167:6 179:1 192:10 211:11 258:24 possible 54:17 58:17 109:22 116:10 117:5,13 117:14 128:14 possibly 219:22 post2010 248:5 potential 32:18 35:22 74:13 75:16 96:13 potentially 31:14 131:13 pounds 255:10,11 power 213:18 powerpoint 169:1 169:19 pr 184:22 practical 163:11 practically 57:7
---	--	---	--	---

practice 110:20,22 126:14	100:15 148:16 161:5 249:14	86:22 87:3 88:7 89:4 95:15 99:7	75:2,6,8 76:22 85:5 94:16,19	75:10,16,17,20 76:4,13 78:4 83:3
preauthorized 217:22	254:10,13	102:14 109:15	95:9 98:13 104:22	89:1,10 92:11
precise 236:9	pressurization 116:2 148:10	112:5,6 115:4,6	104:25 111:3	93:1 94:17,18
prefer 30:11	pretty 21:17 57:23	120:5 121:9 127:4	119:2,8 122:23	95:4,24 96:1,8,11
preferred 30:13	99:25 115:12	134:14 135:11,13	125:23 126:2,4,6	96:16 98:2,4,16
prematurely 248:9	116:10 133:22	136:3 137:7 145:8	127:21 128:1,2	98:17,22 103:8,16
premus 83:9,19	147:15,21,25	149:15 150:4	139:6 185:4	103:19 104:8,14
107:21 112:15	163:2 195:25	156:5 157:2 161:6	193:20,22 203:3	104:15,22 107:6
118:3 122:2,20	207:8 211:4	163:4 180:7	206:11 209:2	108:1,3 118:21
158:11 204:12	216:20 222:11	184:20 188:25	219:3,9 226:24	119:13 120:19
229:9 231:25	236:20 240:16	189:12 190:10	260:1 272:25	121:2 122:3,5
233:12,21 235:4	previous 10:14	191:4 193:22	processing 83:15	123:17,22 129:17
prepare 24:20	61:4 174:3 255:13	197:3,4 209:24	165:24 172:21,24	131:11,19 132:5
prepared 169:19	previously 201:3,4	210:5 211:5	271:10,15	132:23,25 133:2
preparing 25:11	201:7 203:5	219:13 221:13	produce 28:12	133:18,20,22
present 170:19	224:22 226:21	225:13 242:17	169:9 237:24	134:1,24 140:21
172:1	236:23 238:20	261:24 268:1,2,25	produced 25:21	144:17,23 145:16
presentation 192:7	255:23 259:11,14	270:24 271:14	131:12 144:10	150:14,19,20,20
preserve 195:4,9	price 31:17,21	problem 47:14	146:3 177:18	150:21,22,23
president 21:13	192:16	94:24 109:14	178:21 206:14	151:1,4,13,25
22:11 195:24	pricing 13:11,12,18	178:25 180:16	238:5 251:20	154:12 155:12
208:5 218:22,24	14:2 26:22 31:18	181:24 182:2	256:7 257:15	156:17 157:1,21
pressure 33:24	primary 68:22 96:9	192:18,19,20	268:1	158:14 160:7
98:4 100:1,13,18	print 41:14 48:20	193:14 210:5	producing 28:11	161:21 172:25
100:21 101:2,5	49:4,21 55:4	215:9,10 232:19	64:8 199:15	173:21 180:21
106:6,6 109:23,24	222:25	233:16 234:1,7,22	253:10	182:8,9 183:23
111:4,5,7,9,10,24	printed 204:18,19	245:3,4 246:21	product 8:18 14:13	190:24 193:25
112:14 115:17	242:11 254:25	247:4 248:1 258:5	16:2,3,12 17:1	194:6 202:13
117:8 122:7 129:6	prior 33:12 41:18	271:9	18:3 19:1 20:12	203:2 204:15,16
132:3 144:5,13,15	44:12 48:24 85:15	problems 36:4	22:21,23 24:9	205:5 207:4 215:1
146:14,16,19,21	130:2 136:5,13	47:10,17 100:11	26:17,25 27:10,14	215:10,20 225:25
146:22 147:1,9	162:12 188:3	178:4,13 180:14	28:17,22 31:12,12	226:6,8 227:6,23
148:5,6,12,20	190:25 225:10	184:15 187:4	32:6 34:3,15	227:24 231:17,22
149:2,7,8,11,25	234:9,12 248:7	213:23 215:25	40:11,16,19 41:8	237:21 238:5
158:18,25 159:12	258:16 265:23	224:16 245:18	41:9 43:9,20	240:6,21 242:15
159:20 160:3	private 17:11 18:1	269:12	46:13 47:8,15,18	245:5 246:21
161:13,17,20,21	26:19 196:21	procedure 6:7	49:25 51:4,9,10	247:5,13 248:20
205:3,3,8 212:10	privileged 25:20	129:23 230:5,19	51:24 52:8,18	250:3 251:3
233:4 247:18,23	probably 10:13	procedures 5:17	54:19 56:2 58:16	256:13 257:15
248:9,14,18,24,25	22:19 24:11 28:14	242:16 264:21	58:17 60:16,23,24	259:4 260:1,3,8
249:5,17 251:3	31:5 37:21 38:18	proceed 51:21	62:2,6,8,9,18,24	261:20 262:7,12
255:1,10,11,14	39:23,24 52:11	237:13	63:1 65:9 66:19	262:19 267:17
268:11,14,16,24	53:14 56:16,20	proceedings 7:1	67:6,11 68:19,22	268:22 272:23
pressures 98:9	58:5 75:4 85:17	process 27:22	68:24 69:13,21	production 82:21
		33:17 74:8,11	70:4,4 71:8 74:14	172:20 251:21

products 8:10,13 8:21 13:6,12 14:14,15 15:4,7,7 15:23 16:8,25 17:6 18:1,8 19:5 19:13,23 20:6,7 22:1,18 24:4 26:19,20,21 31:17 32:19 33:18,22 34:1 36:7,12,15 36:25 51:15 53:18 56:11 61:19,24 66:15 70:7,10,19 73:21 76:6,7 77:7 80:19 85:10 91:22 91:24 92:1,3,16 94:21 95:10 98:18 98:25 99:2,13,16 104:12,18 110:10 112:18,22 118:4,6 119:8 120:17 121:15 123:19,25 124:4,4,10,14,16 124:20 140:9 144:22 151:6,18 152:22 153:22 155:23 160:9 167:1,7 177:2 179:14 183:7 191:13,25 192:14 194:21 205:9 206:8 210:18 223:11 225:5,10 230:11 236:14 237:25 238:13 245:9 256:18 262:11	44:13 46:10,23 47:1 51:2 61:6 75:1 79:15 80:4 81:18,21,22 82:6 82:10,15 88:14 125:22 131:10 175:3 190:25 259:18 260:1,5 projects 43:14 83:5 85:5 promise 250:20 promote 240:5 promoting 93:19 promotion 12:16 14:13 promptly 216:24 224:17 proper 98:21,21 properly 146:20 236:1 238:5 271:17 properties 63:1 231:13 property 151:12,25 153:3 154:7,13 155:9 156:1 157:6 182:17 proposal 125:15 175:10 234:14 protect 96:12 108:20 117:2 protecting 155:2 protection 146:20 151:7 protocol 52:4 183:14 184:25 185:9 236:16 protocols 52:21 67:7,17 90:13 proves 150:21 provide 34:13 35:3 76:4 113:13,14,25 116:23 155:25 provided 35:8 65:15 81:1 88:25 169:13	provides 140:8 151:8 providing 94:7 109:10 provisional 55:15 55:21,25 71:13 prudent 147:10 psi 146:18 147:6,7 147:21 148:2,17 148:23,23 149:9 160:4 161:24 204:14,21,25 ptfa 36:9 pti 36:10 public 6:8 108:22 181:20 183:4,17 214:21 publicly 34:25 published 91:14 169:16 pulte 195:15 266:19 pumping 146:17 159:18,20,21 puncture 106:8 purchase 57:18 60:16 87:6 259:1 purchased 26:9 38:20 111:4,14 162:20 230:7 257:17 purchasers 166:25 purchases 226:1 purchasing 88:4 180:6 183:25 184:8 224:5,7 purpose 137:20 150:19 257:9 purposely 108:19 purposes 99:16 pursuant 6:7 pursue 165:5 pursuing 165:9 push 187:8 put 31:3 62:23 94:1 94:3 110:13 117:5	117:6 134:12 137:8 144:13 149:25 159:18 162:2,3 166:9 179:20 180:18 209:15 240:12 248:3 252:5 254:12 261:16,17 264:15 puts 149:2 250:20 putting 26:22 92:22 135:16 161:23 194:2 pyrometer 111:14 111:15,24 112:14	166:20 167:2 251:1 252:13 267:6,12 268:4,9 269:4,7,9 272:14 quick 180:20 235:24 236:10 263:12 267:6 quickly 64:23 quite 187:5 quotes 166:9
R				
radiant 28:23,23 29:14 radius 101:9,14 179:22 228:11,15 radiuses 228:21 raise 7:3 raised 247:22 raises 183:1 raising 261:19 randy 1:23 6:3 7:23 54:24 108:18 123:12 152:11 range 50:25 51:1 126:24 271:4 ranged 189:12 ranges 210:20 ranking 262:10 rare 99:25 116:10 215:23 rated 147:2 148:17 rating 132:16 148:18 256:1 261:20 262:6 ratings 92:21 raw 27:23 145:14 146:5 ray 1:3 2:4 reach 17:17 44:1 128:8 reaction 27:18,24 47:17,17 117:5 195:2 240:17 read 50:13 56:16 78:16 109:21				
Q				
qualified 157:18 qualities 111:22 quality 12:25 13:2 13:5,15 52:7 61:23 62:6,9,18 66:19,20 73:22 74:3 83:9,19 241:15,17,21 242:1,2,8 248:20 quebec 27:7 quell 252:5 question 10:21 11:8 11:12,13 22:4 35:25 55:17 67:3 68:2 90:5 99:17 103:21 112:11 115:25 116:16 119:18 130:17,22 163:8 183:1 186:7 204:8 244:20 254:17 261:18 265:17 268:13 270:9 questionnaire 93:11 questions 7:18 10:20,25 11:5 47:22 50:21 59:15 66:10 126:7 164:5				

125:7 152:11 155:9 164:12 186:6 245:3 readily 34:22 73:11 103:10 reading 49:23 59:16 69:23 78:5 89:4 155:8 203:23 readings 158:1 reads 140:19 221:20 252:24 255:9 ready 104:13 153:15 251:22 real 134:3 163:3 really 35:10 45:11 45:20 46:21 61:12 66:2,2 67:18 79:12 83:22 92:20 97:4 101:4 113:1 114:8 127:9 129:7 133:23 136:15 143:1 145:10,11 145:15 146:25 158:15 160:21 162:6,25 175:5 180:3 188:7 226:14 229:22 230:1 238:15,15 240:3 245:13 246:14 249:16 258:24 262:10 reason 32:5 46:11 47:5 50:4 53:17 63:7,21 88:13 92:8 113:16 116:12 126:9 137:10 139:12 174:25 177:22 191:19 210:4 230:25 232:24 reasonable 149:1 reasonably 193:23 reasons 17:22 30:13,18 31:23 46:9,25 47:5 50:3	61:5 77:14,16 108:19 131:18 recall 9:21 10:4 18:6,11,16 28:5,8 33:7 34:8 35:4,4 37:15,25 38:12,13 38:15,16,19 39:3 43:2 45:17 47:16 51:18 52:25 59:12 73:20 74:1 76:20 76:21 79:19,22 80:5 81:16 86:13 117:14 118:13 123:19 129:1 130:25 140:18 142:9 149:7 175:24 181:12,18 189:11 197:13 207:19 209:10 213:11 214:25 228:22 229:11,17 233:11 237:7 238:15 239:3 240:1 246:14 258:23 receive 11:20 received 11:17 34:21 60:6 114:16 118:10 195:10 197:9,17 200:1 205:21 232:3 235:14 237:5 251:13,18 271:19 receiving 43:17 51:3 197:13 221:1 221:7 229:11 recession 85:24 recipe 41:14 271:11 recipient 229:9 236:24 recir 131:23,24 132:5,13 135:11 recirc 251:3 recirculate 134:14 135:17 136:16 recirculating 135:3	recirculation 44:3 44:5 45:1 46:5,8 46:18 88:8,15 89:3 92:20,22 131:22 134:6,11 134:12,13,25 135:16,22,23 136:7 139:19,22 140:2,16,20 194:10,14 recognize 158:22 167:10,17,18 171:11 197:13,16 197:18 199:25 200:3 201:10 203:12,16 206:1 207:23 213:5,8 218:13 221:5 222:8,9 224:24 225:2 229:15 237:1,4 238:21,25 239:20,23 244:7 244:11 249:23 250:1 251:17,23 252:17 256:2,5 259:3,19,22 261:2 263:3,6 264:22 recognized 74:13 recognizing 131:9 recollection 48:10 78:1 recommend 140:19 142:18 147:3 recommendation 51:22 72:13 75:23 79:3,4 80:17 81:10 100:2 125:15 134:20 147:3 recommendations 77:5 78:22 98:6 126:13 recommended 78:6 101:9 117:7 134:12 136:16 139:18 148:8	214:4 222:13 recommending 78:17 80:9 81:2 135:21 record 7:22 10:21 11:2 50:16,18 88:21,22 123:10 157:12 166:19 194:2,3 216:8 221:19,23,25 251:6,9 267:1 274:10 recorded 274:9 records 90:24 172:7 recourse 166:7 recover 202:15 recovery 151:5,14 151:24 154:13 155:11 recross 4:7 272:16 red 60:18 63:11,14 63:17 64:11,17 65:5,10,15 66:12 72:8 80:10 81:3 84:15 138:10 139:7 217:9 redacted 213:6 redress 273:6 reduced 274:9 reducing 69:8 reel 116:13 reem 265:21 reexamination 4:6 270:10 refer 83:23 141:3 214:7 reference 248:22 referenced 63:16 referred 96:20 97:3 179:13 181:5 203:4 217:12 234:23 referring 29:1 47:11 50:22 68:16 75:10 89:11	106:17 147:12 185:24 209:1 214:12 228:18 232:4,9,16 233:14 233:16,24 234:7,8 234:11 235:8 245:16 250:22 refers 198:19 202:20 223:7,24 238:10 reflect 182:1 reflected 197:21 221:9 reformulate 42:22 43:20 51:17 52:2 87:19 88:5 131:7 132:8 reformulated 43:4 45:18 51:5,25 reformulating 43:9 46:15 92:9 reformulation 41:18 43:13 44:12 46:10,25 51:2 61:5 79:15 81:18 81:22 82:5,13 88:14 125:21 131:10,13,19 145:3 175:3 259:17 reformulations 104:21 refused 157:9 regarding 40:11,15 109:10 122:1 125:4 155:9,11 176:1 194:21 regardless 97:1 113:8 116:23 118:17 126:22 156:12 region 160:9,20 regional 160:13 213:20 regions 160:23 161:19
--	--	---	---	---

regression 67:8	146:19 248:14,18	removed 48:23	115:15 118:22	35:13,22 36:4
regular 82:17	258:4	49:24	168:21 169:12	47:7 61:21 64:25
84:11,23 260:11	reluctant 37:21	removing 49:3	171:17 173:22	69:22 89:20 92:13
regularly 63:4	rely 84:9	renew 202:21	175:24 189:11	131:24 132:1
184:1	remain 92:13	renewal 205:24	206:17,19 207:6	133:19,20 136:25
regulated 54:14	220:18	206:9	207:10	137:13 261:21
regulatory 201:20	remedy 258:3	renewing 206:5	represent 7:15	resistant 47:16
206:23	remember 9:9,13	rep 250:15 265:21	138:21 166:23	60:19 64:12 89:2
reheating 134:16	9:15 23:12 27:7	repair 150:22	267:5	187:10 188:1
reimbursed 217:17	32:25 33:5,6,9,23	repeat 167:2	representations	200:19
reinforces 51:1	34:6,11 35:10	186:19 228:13	266:10	resolution 227:14
rejected 239:13	39:3 40:1,3 41:25	rephrase 11:7	representative	resolve 181:4
259:6	42:9,11 45:6,9,11	replace 120:9 152:6	90:16 102:11	resolved 206:21
relate 8:4,9 24:4	72:11 74:17 78:8	replaced 98:1	103:9	207:12 219:11
related 8:13 34:5,9	79:2,6,6,7,20,24	replacement 30:18	represented 247:2	227:15,16 244:19
48:14 51:3 99:15	80:6 93:14 94:5,5	96:1 150:23	represents 230:1	244:21
108:16 110:9	94:7 105:13,14,16	replacing 182:8	reps 250:12 261:14	resources 83:24
113:22 118:6	110:11,12,18	report 22:7 49:12	request 25:19	respect 55:22 61:5
195:9 214:16	112:25 113:1	63:13,16 65:17,22	223:4,24	68:13 118:4 124:3
relates 44:22 45:9	118:22 124:11	66:1,3 69:23,24	requested 110:23	124:14 161:14
45:10	125:12,14,18	77:4 78:6,17	requests 209:22	162:7 164:15
relating 107:17	126:3 127:3,10,11	94:17,18 96:4	require 254:23	269:11,23 272:18
110:15 118:14	127:24 134:8	114:2 115:10	required 96:2	respond 102:19
155:23 184:23	135:24 136:12,15	118:7,8 125:1,6,7	176:12	responded 106:22
246:6	137:8 142:14	125:9,20 126:4	requirement 104:6	responds 108:12
relation 24:18	150:6 152:2 160:2	138:16 168:16,24	138:18	response 81:9
100:20 101:13	161:9 164:13	168:25 169:10,17	requirements	109:18 125:19
relationship 28:13	176:20 181:12,21	174:2 175:25	60:21 103:7,13,17	256:14 261:18
32:24 33:11 62:4	182:23 187:12	190:12 200:14	104:1,19 138:3	262:2 267:19
73:14 130:4	196:18 197:19	208:15 252:4	187:15 209:13	responses 97:14
210:12,15 211:12	200:4 201:13,14	reported 20:19	231:22 235:1	responsibilities
211:21 226:14	201:14 203:17,24	22:8,14 168:1	239:10	13:1 14:12 19:12
254:19	206:20 208:4	169:3 176:1	requiring 187:20	20:4,5 26:16
relationships 71:3	213:9,9 214:4	178:13 212:14,17	research 17:13,18	158:12
relative 64:18	216:2 220:9,16	233:1 270:22	researching 17:9	responsibility 20:7
65:19 253:10	221:7,8,9 225:11	reporter 1:25 6:9	17:12	20:10,17 21:7
274:12	225:12 226:2,4	7:3,6 186:8,11,15	reselling 211:20	54:20 59:5 105:15
relatively 49:18	228:6,10,20 237:6	186:20 205:17	reserve 270:7	105:17 107:6,8
50:8,8 98:17	240:3,10 244:13	216:5 221:25	residences 253:20	117:21,25 160:21
109:1 112:23	246:2,17 252:1,21	222:16 274:1,23	resident 160:15	190:16,17 234:18
171:3	256:8 261:6,8	reporting 22:17	residential 98:2	249:16 259:7
release 224:3	263:7 267:11	23:5 82:17 168:18	residents 253:9	responsible 13:11
relevant 65:19	269:8	169:23 170:1	resin 41:12 64:6,7	19:15 20:9 26:18
reliable 194:15	remembered 81:8	reports 43:17 64:4	65:9	40:18 42:12,15,16
relief 109:23 117:8	remind 123:23	79:18 82:12 95:14	resins 64:8	118:1 172:18,23
122:7 144:5,13	remodels 202:11	95:16 108:18	resistance 34:5,9	181:4 190:1

192:24 rest 270:7 restate 35:25 186:4 restrict 68:11 restrictions 140:15 result 51:3 64:12 114:17 115:19 116:8 234:3 272:10 resulted 156:1 270:16 resulting 154:5 results 34:9 35:6 48:14 50:25 51:1 51:16,24 53:11 55:11 64:6,9,16 93:22 95:19 139:11 234:1 272:11 retail 19:3,4,14 87:6 191:1,7 192:9 261:14 retailers 191:23 retain 38:7,9,20 39:19 retained 38:24 40:2 126:2 retested 50:12 69:21 retired 24:8 retrospect 71:21 return 122:21 returned 120:13 129:12 185:16 231:5 272:5 revealed 104:5 128:19 revenue 56:19 196:24 review 25:2 47:23 59:20 60:5 83:4,5 97:6 143:10 164:4 164:10 191:17 192:2 208:23 252:25 260:4 reviewed 25:4,7	74:16 rex 24:18 170:5,7 right 7:4 9:3 10:22 11:14 13:7 23:8 27:8,10 39:9 41:1 47:25 54:24 56:11 59:11 60:14 70:5 70:23 71:14 73:2 73:3 79:22 84:13 84:18 89:11,16 96:13 100:17 104:3 107:18 108:9,13,16,23 116:3,21 119:13 120:10 122:21 125:7 138:24 139:3 140:6,12 145:18 148:8 151:2 153:10,20 155:7 162:13 168:16 170:12 175:19 176:5,7,10 176:13 177:16,20 187:23 188:20 193:17,25 194:10 198:20,23 199:14 204:22 205:5 208:21 210:16 212:2 217:13 226:7 227:1,3,6 227:10 228:6,8,25 237:21 238:6 243:15,22 246:17 247:20 248:11 254:11,12 255:1,3 255:6,22 257:23 260:8 261:23 262:7,8,13 263:15 263:16 271:24 272:2 righthand 171:9 rigid 32:3 ring 196:1 rings 177:13 rip 70:13 risk 48:20 77:25	road 185:13 robert 1:4 2:5 role 12:24 13:6 14:6 15:17 16:1,4 16:5 19:2,18,25 20:1 21:3,17 23:25 24:13 36:15 56:18 167:20 172:2,3,17 173:21 189:24 190:8,9 roles 18:24 room 9:5 204:23 root 95:7 102:3 103:10 105:9,21 106:14,15,24 107:3 108:9 114:9 118:18 128:12 233:8,15,25 roughly 110:9 roundtable 169:20 routine 168:18 175:25 routinely 169:13 207:5 215:17 260:10 rr 205:25 rule 12:8 rules 6:7 10:13 run 24:12 184:22 234:19 running 201:25 rural 130:9 <hr/> S <hr/> s 225:18 safe 49:18 50:8,9 safety 60:21 148:21 255:5 sale 108:4 sales 19:3,4,12,16 23:5 30:23,25 37:5,8,9,13 56:20 58:4,7 61:7,11 70:5 85:25 86:10 87:11,14,22,25 158:6 160:8,13	162:2 168:10 173:16,16 191:1,6 195:24 210:14 213:19,20 218:23 219:16,23 220:5 250:10,11 260:8 260:21 salesman 107:24 salespeople 22:20 22:25 32:22 40:23 94:21 110:25 240:13 salesperson 32:25 54:23 160:10,19 salesrelated 37:11 saline 27:19,22,23 sample 64:7 101:5 101:12,14,17 102:2,5,17,23 104:5 117:19 119:16 128:18 143:11,22 234:4 235:6,11,14 237:14 239:9 samples 63:5 68:10 120:13,14 121:6 122:12,21 129:12 130:8 216:22 221:16 229:24 230:3,5 235:12 236:2 san 146:10,13,14 158:18 248:22 263:2,11 268:19 268:22 sanitation 142:2 sap 222:21,23 sarah 1:4 2:5 satisfaction 143:12 258:5 satisfied 270:12 saw 44:2 61:18 78:6 92:24 97:25 105:12 130:20 162:8 173:10 184:7 215:13	217:23 230:21 245:19 264:25 268:15 270:4 sayco 132:7,7 saying 30:10 44:10 45:25 47:13,14 50:7,11 58:21 59:13 66:12 76:17 78:21 97:16 103:23 108:23,24 113:17 152:10,13 152:14 162:3 164:25 182:11 199:1,5 202:2,12 214:13,14 232:1 239:11 255:9 268:13,15 271:6 273:4 says 48:19 49:11,15 49:17 50:23,25 54:24 63:25 64:13 64:15 65:17 66:1 68:21 75:16 108:18 138:2 139:3 140:25 153:13 154:2,8 165:5 204:15 208:23 222:21 223:6,23 224:3,12 232:12 234:15 235:5 237:12 245:1 250:17,19 250:22 252:25 257:17 262:1 263:14 264:20,21 schedule 16:3 science 12:5 se 163:22 197:18 221:8 268:20 seasoned 129:18 second 44:11 45:22 50:17,23 60:15 88:25 131:24 138:1 166:16 204:8,9 214:6 216:6 224:2 232:3
--	---	--	--	--

235:5,6 241:10 251:7 secondary 28:4 83:15 172:21,24 section 63:25 65:4 65:5 68:18,19,21 74:7 75:23 138:2 140:24 253:10 see 48:4 56:15 60:25 64:25 65:6 65:11 68:4,19 70:12 75:5,19,24 95:16 97:11,23 98:7 101:19,25 117:7 133:8 138:1 138:4 153:13 158:4 164:21 203:23 209:3 217:9 224:12 225:7 237:19 245:8 246:6 253:17 254:7 257:16 260:4 266:24 seeing 34:8 61:14 79:12 122:6 137:8 141:3 232:15 243:11 seek 70:24 184:6 seeking 166:7,25 206:25 seemingly 230:12 seen 59:23 60:3 97:19 130:17 137:1 150:5 184:19,19 187:11 205:7,10 224:23 232:22 246:8 257:3 264:7 265:14 266:1,4 270:1 select 192:13 sell 26:19 32:22 38:1 41:22 54:4,9 55:7 56:11,12 57:1,7,25 58:16	58:17 60:24 62:12 70:7 73:10 74:23 86:21 108:1,3 121:2 133:24 141:12 160:10 178:10 179:25 188:15 191:7,21 191:22,24 198:15 210:18,23,25 211:17,18 247:7,8 250:16 261:15,16 selling 17:10,25 19:13 20:6 25:25 26:9,23 28:22 29:3,7,8,10,13,13 29:18 30:17 31:8 31:17,25 40:19 44:12 59:10 61:20 61:24 62:7,12 64:9 66:21 73:13 76:7 86:14,20 98:24 107:25 132:24 133:2 140:1 160:7 170:25 171:1,1 176:23,25 177:24 178:7,18 179:10 191:10,12 197:1 202:23 211:5 215:24 240:20 260:19 sells 191:13 send 74:22 96:15 101:18 102:11 103:8 105:24 114:24 115:1 116:13 119:12,15 130:8 217:6 230:5 235:12 239:24 259:24 sender 259:15 sending 95:17 120:16 165:17 166:11 194:12 200:21 207:19 208:15 233:13,21	244:24 250:9 259:16 sends 100:19 102:6 114:18 senior 257:2 261:12 sense 67:10 116:11 136:20 137:23 163:11 sent 93:10 95:3,22 96:4,20 101:12 102:17 105:20 107:21 114:3 116:13,15 119:21 120:12 143:11 185:1,5 192:22 207:25 209:14,22 216:13 217:24 222:3 231:5 236:2 238:10,22 239:9 239:21 240:2,4,11 241:11 255:25 257:11,12,25 259:19 260:6 263:13 266:6 268:1,2 sentence 64:3 257:16 separate 36:22,23 39:6 62:6 78:23 91:17 162:18 163:9 170:15 209:6 215:1 september 107:22 251:14 serial 192:25 serration 99:24 served 253:9 service 37:11 39:13 163:5 215:15 216:3 217:4 services 72:24 73:5 73:11,17 74:12,22 108:12 114:2 116:13 156:18 200:22 209:17 226:22 257:2	set 56:3 111:19 135:17 136:7 218:1,3,5 242:11 274:6 setting 78:23 settled 227:17 sexton 84:6 122:4 122:10 130:9 shaking 11:1 shamberg 2:8 4:3 7:12,15 25:19,23 50:19 88:20 89:7 123:6,8,11 157:11 157:13 166:20 221:19,22 share 17:23 54:12 86:1 shared 117:15 170:9 266:19 sharing 117:1 166:3 shed 130:8 sheet 166:3 sheets 169:6 shes 158:13 171:24 171:25 232:1,4,9 232:16 233:14,24 234:7,8,8,10 235:8,10,13 250:22 shift 21:6 shifts 184:12 ship 104:11 shipment 269:7 shipped 243:14 270:18,21 271:1 shipping 20:11 105:1 172:23,24 short 85:6 88:10 148:16 shortage 17:24 shorten 205:4,6 255:16,18 shorter 56:4 shorthand 223:10 shortly 41:24 42:2	shortterm 255:15 shot 191:16,17,19 show 47:19 51:16 64:5 86:10 249:14 showed 63:17 226:11 264:13 shower 136:20 showing 107:16 209:20 211:23 226:5 shown 60:22 89:19 shows 168:15 171:9 238:4 shreiner 169:5 side 81:24 162:4 266:25 signed 239:19 257:2 significant 26:14 66:14 219:14,15 219:19 signify 44:18 signoff 175:11 silone 132:7 similar 8:23,23 82:13,14 115:13 172:2 193:20,22 194:4 239:6 similarity 152:23 similarly 1:4 2:7 similary 1:16 2:17 simple 46:2 142:10 simply 120:8 simultaneous 187:22 single 63:6 273:7 sioux 18:21 168:7 173:19 177:2 sir 7:3 157:11 sit 90:9 99:10 170:5 170:7 174:5 229:3 site 34:19 101:19 109:17 110:3,5,8 110:9,16 112:3,12 112:17,23 113:12 113:21,22,23
---	--	--	--	---

114:8,12 115:5 122:6 127:21 128:2,7 142:13 143:17 149:21 157:14,16,25 sites 184:16 sitting 118:13 situated 1:5,16 2:7 2:17 situation 55:9 57:24 76:20,24 101:12 102:16 104:10 106:19 213:10,24 215:22 221:17 situations 217:21 six 20:2 114:25 258:2 sizable 218:21 size 201:22,25 202:1,9 226:3 skill 121:19 skills 274:11 slack 179:7 slang 236:8 sleeve 178:9 slide 179:21 slow 221:15 small 86:2 88:7 99:20 101:4 102:6 110:17 112:23 156:5 163:2,3 217:15 smaller 38:2 191:23 210:25 211:3 sminkey 1:3 2:4 sold 8:10 26:3 28:16 31:1,5 38:2 42:10 53:21 70:10 86:24 87:1 92:3 104:13,14,18 124:14 132:22 145:16 150:12 161:11 162:12 177:12 181:20,25	183:15 188:3,6 191:21 197:2 199:1,2 208:13,13 211:7 214:8,21 250:13,13 257:13 260:22 268:25 269:23 270:14 272:9 solely 39:18 114:13 solemnly 7:6 somebody 79:24 225:9 249:13 somebodys 189:9 266:7 someones 119:19 son 149:18 soon 224:18 250:6 sorry 12:8 17:3 29:12,16 66:9 78:7 112:10 117:9 124:13 168:13 182:16 223:13 233:18 252:15 254:18 263:25 sort 15:4 22:1 38:4 63:24 64:11 149:20 168:19 sorts 234:16 sound 186:16 228:8 sounded 195:25 sounds 58:21 source 26:25 33:12 74:13 75:16,17 121:2 176:21,22 249:7,13 sources 18:7,15,17 26:17 32:18 53:4 69:7 177:3 180:10 180:11,15 183:24 183:24 sourcing 16:18,22 16:24,25 31:8 33:20 35:12 36:24 190:24 199:13 south 159:15 210:20	southeast 159:11 160:17,20 161:5 161:15 210:19 212:9 268:12,13 268:17,18 269:2 southern 168:13 space 32:9 73:5 226:21 spartan 203:21 speak 24:25 59:7 speaking 57:7 special 180:1 211:20 specialty 196:12 specific 9:13,15 36:14 39:4 51:18 51:18 72:11 78:1 107:17 116:20 124:15 128:25 142:6 147:19 175:24 223:8 236:11 237:6 241:6 247:24 267:22 269:24 specifically 30:10 34:9 59:12 77:19 87:16 99:3,16 108:9 118:5 125:12 145:19 151:2 152:5,13 153:5 154:3 155:8 155:24 212:8 233:9 239:1 244:25 245:16 specification 148:4 148:7 specifications 146:22 183:23 specifics 9:9 52:19 118:22 specify 70:18 speculate 128:12 165:14 223:19 speculating 251:4 speed 149:1 spell 273:7	spelled 153:6 spelling 152:8 spent 175:10 spikes 111:9 spite 62:18 split 160:9 spoke 24:22 spot 179:4 spread 77:24 spreadsheet 207:16 208:24 209:8,20 springs 210:16 sprinkled 118:19 spurred 92:23 square 255:11 271:6 stack 164:1 staff 51:8 82:17 94:23 97:14 106:7 155:21 185:19 stainless 176:22 177:17 178:9,14 178:21 stamp 265:18 stamped 55:4 198:1 stand 272:23 standard 5:16 54:6 55:12,15 64:19 65:20 66:2,7 104:7,25 110:19 110:22 126:19 129:23,23 131:22 147:21 148:1,13 197:22 198:14 207:4 230:4 242:15 264:20 standardization 62:24,25 standardized 215:18 standards 13:4 33:19 34:3 35:8 54:19 56:13 57:6 62:21,23 66:19 68:8 76:5,8 89:2 90:15,19 91:8,14	92:21 105:5 124:2 126:16 135:8,20 137:20 183:20 184:2 188:7 198:12 204:18 206:7 238:6 241:18 242:10,11 262:11,20 standpoint 36:12 36:13 44:6 61:12 67:23 108:21 117:2 163:1 stands 94:17 96:24 stanger 213:4 217:24 start 7:21 12:20 15:8 20:13 38:12 53:6 86:14 100:13 112:5 117:4,11 121:6 125:22 started 12:23 15:9 15:19 17:9,10,12 17:25 29:3,7,13 32:23 33:11,17 42:3 85:24 93:19 97:5 98:24 99:7 109:16,16 112:7 122:13,14 125:21 131:22 134:21 149:21 157:22 161:8,22 187:13 187:24 190:24 196:25 199:14 200:10 229:23 230:19,25 248:6 starting 218:25 starts 48:18 state 6:9 7:21 83:4 139:13 144:1 147:16,16 150:15 151:4,7,13,25 154:12 155:11 198:4,7 202:14,16 225:23 242:22 252:4 stated 51:13 70:1
--	--	--	--	---

200:13 statement 109:6 117:6 138:10 154:10,11 155:10 155:12 232:10 237:16 268:19 statements 255:14 states 1:1,12 38:3 99:3 124:6,15,18 124:21 137:18 147:20,23 148:1 159:9 160:20 161:16 195:8 197:22,24 198:4 225:19 245:5,19 249:15 268:10,12 268:14 269:2 stating 75:15 152:5 245:18 257:15 station 159:20,21 stations 146:17 159:19 status 208:15 stay 35:2 158:15 stayed 170:18 steam 133:3,5,5,6 steel 176:22 177:17 178:9,14,21 179:19 step 86:11 125:6 147:10 245:6 stepping 182:11 steps 181:4 185:14 192:20 193:6 195:1 steve 22:8,9,14 56:19 168:21 169:4,7 173:25 218:4 sticking 202:13 stipulation 6:1 stmfa 76 49:14 stock 86:23 211:3 stop 88:4 177:21 stopped 22:2 132:24 133:1	176:23 263:20 storage 100:3 196:12 stores 38:1 261:16 storing 172:22 story 203:24 204:1 strange 147:18 213:24 strategy 4:14 26:23 60:10 88:11 125:4 stray 167:3 stream 41:15 48:20 55:4 street 2:20 73:6 226:23 strengthen 72:19 strengths 240:21 stress 99:24 180:19 stressed 116:5 strike 39:18 102:10 stringent 254:6 stripe 49:4,21 strong 192:9 205:1 struggle 133:11 stuck 217:16 studies 92:17 93:21 93:22 205:7,10 studs 179:19,21 study 12:4 75:7 93:16 253:6 stuff 151:23 172:5 245:13 subdivision 263:2 subject 140:22 205:24 259:17 submit 128:17 submitted 183:2 223:22 230:18 258:8 269:16 274:25 subsequent 60:22 113:19 226:25 subset 88:7 substantially 257:17,22 suburbs 202:17	successful 85:25 98:22 191:2,10 193:5 suddenly 132:10 sued 227:3 245:12 245:21,22,24 246:9,10,10,16 suffered 36:4 suggest 237:12 suggesting 57:23 199:7,9 suggests 253:6 suite 2:10 3:6 suites 6:4 summaries 25:7 summary 169:21 170:5 sunbelt 107:24 160:11,16 210:9 211:11,19,21 260:12 sundry 152:9 super 209:11 supplied 211:8 supplier 73:8 214:19 220:18,21 269:8 suppliers 145:15 146:5 184:1 207:6 214:18 253:1,3 supply 21:13 218:24 support 94:23 supported 71:25 214:5 supports 179:22 suppose 87:2 187:23 242:20 supposed 179:4 sure 13:4 23:11,20 23:22 27:15 38:24 39:23 42:15 47:20 49:5 52:10 56:1 56:24 70:8,9 72:12 78:10 86:23 88:20 93:9 96:10	96:22 97:8,12 99:4 102:25 103:2 111:18 113:10 115:15 119:19,22 121:11,13 122:16 125:13,16 135:17 137:4 142:14 146:18 161:20 165:12 167:5 175:16 179:15 183:10,19 184:10 185:12 186:4 188:8 189:18 195:10 199:24 201:6 204:11 207:2,8 212:25 221:17 230:22 234:10 238:3 240:16 245:2 248:18 251:8 252:7 263:2 266:5 surmising 271:13 surprised 259:10 surprising 233:4 susan 1:15 2:15 suspect 144:16 224:10 237:8 suspected 213:17 suspects 109:22 128:14 203:25 suspended 42:11 sustain 204:17,22 205:2 sustained 205:3 swag 235:25 236:6 236:8 swear 6:9 7:6 swell 231:3 switch 76:19 77:1 77:19 78:11 122:19 132:6 186:16 187:25 214:1 256:13 switched 41:23 42:1 76:11 180:9 225:12	sworn 274:7 syndicate 163:17 system 18:10 44:23 94:12,15 134:13 134:25 135:6,11 136:6,8,17,19 142:4 148:23 153:23 158:4 170:24 171:2 176:7,10 177:14 185:11 186:17 188:4 194:14 198:10,14 199:5,8 200:11 222:24 241:15 242:2 265:2,6 systems 17:23 19:20 44:3 46:8 88:15 92:22 134:6 134:11 135:16,23 138:1,3 139:19,22 140:2,16 184:4 190:3 194:10 241:21,25 242:1 262:21
T				
t 181:11,15 223:6,6 235:9 table 64:24 take 11:11,14 16:11 17:15 20:13 21:18 24:13 25:10 47:23 51:8 54:18 70:13 88:19 94:23 95:17 101:19 117:25 125:19 128:18 130:8 147:10 158:1 159:3 166:16 167:10 171:6,10 183:12 185:14 186:18 192:21 193:7,9 195:17 197:8,12 197:25 199:19,22 201:5 205:20,25				

207:13,19 208:17	127:24 135:14	telephone 2:12,22	183:21 236:6	51:11 52:4,4,14
208:20 210:7	138:23 139:17	3:8	240:24 241:4	52:21,23 53:2,4,5
211:2 212:24	146:2 157:14	tell 8:12 24:23	terms 26:16 31:3	53:7,11,18,20
216:10,14 218:8	158:16 188:25	44:17,20 51:23	35:1 49:3 50:7	54:12,12 60:22
220:24 221:4	192:17 205:1	55:4 70:14 71:7	58:21 62:25 66:17	62:1,9 63:11,14
222:1,7,19 224:20	214:17 223:12	101:1,4,16 106:9	89:8 92:10 93:11	63:15,16 64:25
224:23 229:6,10	224:9 229:23	106:24 109:19,20	223:10 229:23	66:24 67:17 69:1
236:22 238:19	231:9 245:2	111:8 122:18	254:2	69:3,6,14,22 70:1
239:20 243:25	249:22 250:4,4	127:11 146:18	terracotta 235:6,9	72:3 90:1,13,15
244:6 249:22	253:24 271:18	152:3 167:10,16	territories 173:17	104:15 137:20
251:11,17 255:22	talks 133:4	171:11,11 197:12	territory 70:7	138:6,24,25 139:4
256:1,23 259:13	tank 117:9	199:25 201:10	173:17 210:19	139:7,8 183:19
259:18 260:23	tanks 144:6,14	203:12 205:15	225:16	202:6 229:21
262:24 264:17	248:15	206:1,20 207:19	test 23:10 34:8 35:6	231:10 234:15
265:11,13 266:9	tardy 209:15	213:5 216:14	48:14 50:12,25	237:9,25 239:8
266:12,23	task 94:4	218:12 221:4,4	51:1,3,15,24	253:15 254:5,12
taken 6:3,7 25:5	team 32:17 33:15	222:7 224:24	52:17 53:22 54:9	254:15,19,21
50:3 91:4 183:12	40:18 51:22,23	229:11 237:1	54:16,17 55:5,11	262:18,19
211:4 269:18	61:14 82:22,24	238:21 239:20	59:3,13,16 62:20	testings 254:23
274:5,11	83:18 84:2 90:19	244:7,14 245:4,11	63:7,17 64:9,13	tests 33:25 34:12
takes 32:6 55:11	162:22 174:14	249:23 251:17	66:13 67:7,7,11	36:17 44:22 47:2
76:23 98:19	189:25 209:17	252:21 256:1,11	67:13 68:10	49:12 59:11 61:10
talk 10:12 51:20	214:5 215:13	258:20 259:18	104:20,24,24	62:3 64:4 69:9
90:10 92:8 117:18	250:18	261:2 265:13	105:6 138:20	72:9 84:16 89:20
137:13,15 143:2	teams 56:16 82:25	267:14	139:10 204:13	183:19 185:15
149:23 166:13	174:4	telling 151:10	206:16,18 207:10	206:25 215:8,18
198:11 254:2,4	technical 43:18	temperature 101:2	230:5,8,10 231:11	231:9,16 242:24
269:5	51:9,22,23 52:3	101:5 111:16,17	231:13 235:2,24	254:18,18,20
talked 33:15 36:11	52:19 56:16 58:23	116:2 129:7	236:3,5,10,14,15	texas 173:18
47:6,9 67:1 72:12	59:6,8 61:14 66:5	204:16,23 255:1	237:13,20,21,24	225:18 232:2,3
72:13 79:7 84:23	67:13,16 69:17	255:15 271:12	237:24,25 243:2,4	250:13
93:25 117:23	71:16 72:6,7,18	temperatures	243:6,7	thank 59:19 107:15
125:1 127:20	83:8,23 84:3,9	148:8 254:9,14	tested 52:7 55:6	130:16 136:23
129:11 136:1	90:8,14 94:22	temporarily 50:3	63:6 138:9 183:14	150:3 153:15
174:3,14,21 175:1	95:25 97:14 106:7	temporary 56:2	254:4	164:2 203:8
175:6 188:22	108:12 114:2	ten 62:13 135:15	testified 91:18 92:9	207:12 256:22
204:5 214:12	121:3,18 137:7	146:3 151:21	testify 274:7	259:12
225:5 231:10	138:19 143:2	219:19,21	testimony 7:7	thanks 221:22
233:2 241:1	156:18 157:7	tended 270:23	123:19 174:3	thatll 10:21
247:17 262:17	200:16,22,24	tennessee 1:12	175:4 177:15	thats 10:23 22:21
268:18 272:19	209:17 215:13	159:13	188:21 194:5	26:14 34:22 41:7
talking 5:12 35:17	217:3 238:17	tenure 86:9 135:25	210:10 228:24	43:23 44:6 48:1
41:16 47:13 67:15	239:15 252:4	177:1	229:2	49:6,7 54:20 62:1
68:13 74:24 78:19	257:2 271:8	term 16:18,20	testing 33:17,21,24	62:14 63:7 67:24
79:2 89:6 108:7	technicaltype 158:3	31:13 32:7 88:10	33:25 34:4 40:11	68:15 71:8,14
113:17 123:16	tee 235:7	141:2,4,6 148:16	40:16 49:6,12	72:4,4 75:11

83:17 89:5,6,10 90:5 96:9 100:4 102:17 104:10 105:5 106:2 119:18 126:16 134:19 136:6,24 138:22 139:3 140:11 141:2 144:14,16 147:6 147:10 148:3,21 149:3 150:1 151:12 152:25 153:23 155:14,15 156:24 160:5 161:7,22 164:9 176:7,11 182:13 182:18,22 186:13 186:19 190:15 192:8 196:3 197:20 198:5,17 198:17 199:9 200:13 202:1,2 203:4 204:15 208:19 209:19 211:16 213:5 217:11 219:11 221:17 227:25 233:4 237:20 242:18 247:9,21 251:20 253:19 254:7 255:21,21 260:5 264:7,14 273:12 theirs 61:16 256:14 theoretical 116:11 theoretically 272:8 theorized 64:16 thered 83:2 235:13 theres 38:25 39:23 39:24 44:21 49:6 50:2,2 52:5,5,13 57:11 61:25 62:24 64:24 65:2,3,5 66:23 67:16 68:18 69:18,24 70:9,15 72:24 74:7 75:23	75:24 83:7 89:19 89:24 90:14 92:6 95:1 96:2,3 100:23 102:6,21 105:6 106:3,6,8 106:10 107:4 109:21 111:9 113:4,5 124:20 126:22 137:18,19 137:24 139:17 141:10 142:8 146:7,12 148:19 149:6 151:11 152:23 153:2 154:1 159:16,22 161:19 169:6 172:19,19,20,21 173:10 178:16 179:8,17 193:7 195:7 198:12 203:25 204:25 207:16 211:13,18 212:9 234:12 241:20 242:17 245:17 246:3,3,10 247:4,22 249:2 251:19 252:19 254:19 260:4 271:1 theyll 69:6 141:25 141:25 theyre 53:13,14,14 67:18 92:18 96:14 97:3 114:3 152:13 153:5 155:1 156:18 158:8 159:21 168:8 173:2 187:10 199:3 202:2,12 208:3 210:15,17 210:23 211:3,14 211:17 217:1 218:20 219:18,19 220:20 247:11 262:10 theyve 90:11 91:4	105:25 106:1 132:24 159:6 198:6 211:4,5,6 thickness 201:23 thin 103:3 thing 23:9 96:9 100:4 102:25 129:10 141:24 143:18 145:7 160:14 164:10 178:1 192:9 196:2 211:25 270:24 273:7 things 10:1 40:5,8 51:8 59:7 62:4 76:4 84:8 90:11 90:20,21 91:18 96:15 97:18 98:21 100:12 102:21 104:21 106:10 109:8,17 110:1 111:19 112:17 113:20 117:11 118:21 123:13,15 125:25 128:13,20 137:21 149:23 152:7,9,12,17,25 153:7 157:4 158:4 158:9 159:25 169:19 174:15,16 174:17 175:1,8 178:17 179:17 180:2,2 185:14,22 187:12,21 190:4,7 191:4 202:11 213:15 215:6 216:21,24 217:15 231:2 242:7 246:8 250:6 264:16 266:22 267:17 think 8:14 14:10 22:21 28:21 29:10 30:7,15 32:4,10 32:10,21 42:2 43:2 44:19 45:10 46:2,3,11,12,24	46:24 47:7 48:12 50:8 52:1 53:13 53:13 55:9 56:2 58:9 61:7,10 63:13,19,19 71:21 71:24 77:8,9,23 77:23 78:16,18 80:4,23 81:8 82:7 86:9,16,17,22 87:4,12,12,18 88:16,18,24 89:5 92:5,5 93:18,24 94:16 95:11,15,15 97:19 98:14,17 102:1,13,20 104:12 105:11,11 105:15 106:7 108:23,25 109:5,8 109:15 112:22 114:1,7,9 115:4 116:14 117:3 118:23 120:15,16 121:13,14,15,16 121:20 122:2,2 124:7,7,8,9,15,24 126:19 127:1,1,2 127:7,11,13 128:9 128:10,15,25 129:21,21,22 130:3,4,10 131:25 133:3,8,10,13,17 133:23 134:18 135:8,10 136:11 136:14,15 137:4,7 137:12,20 138:13 139:11 141:8,12 141:19,20 142:12 142:19 143:6,8,15 143:17 144:3 147:10 148:17 156:5 157:22 159:1,4,11 160:16 161:25 162:25 164:12 166:10 171:24 173:7,15 173:15,18 174:13	175:8 177:22,23 178:16 180:8 181:3,5,8,9,13,15 182:25 183:9,10 183:11,12,21 184:7,11 188:8,21 188:25 189:18,19 191:3 192:15 193:4,4 194:5 197:3,6 199:15 200:4 206:21 207:3 209:24 213:9 214:15,17 214:24 215:11,12 217:2,9 218:5 220:10 221:11 225:11 227:15,17 228:6,9,10,14,20 228:22 229:20 230:14,19 234:25 234:25 235:10 236:9 238:2 240:1 240:2,4,11,12,19 241:25 242:7 245:17,23,23,24 251:22 253:12,14 254:1,3,7 255:12 255:13 257:7 260:2 263:15 264:25 266:5,6 267:24 268:15 273:12 thinking 113:6 165:19 174:17 252:12,18 258:13 thinks 262:9 third 48:18 54:7 57:2,17 58:6 60:23 66:17 171:13 172:22 178:9 198:18 223:23 252:23 thirdparty 34:14 35:1,2 48:21 52:23 55:22 58:12 62:9 63:10 70:24
---	---	---	---	--

71:3,17 76:11 77:2,20 85:2 89:15 thomas 5:3 251:13 255:24 261:1 264:4 thought 31:13,20 32:2,5,7 42:18 72:1 75:4 134:1 158:5 178:10 179:8 181:3 230:20 thoughts 202:16 thousands 181:22 181:23 220:11 three 8:3 22:20 49:18 50:13 65:23 65:23 82:23 83:7 86:7 87:3 97:5 111:6 124:21 132:14 160:23 172:19 189:13,16 223:13 224:14 268:21 threequarter 202:3 threw 195:25 throwing 209:7 ticket 58:9 tie 150:15 tied 148:5 tight 100:8 time 11:11 15:10,21 16:15,19,23,25 21:9 22:10 28:15 30:20 34:10 36:8 37:13,19 38:13 39:22 40:15,17 41:16,21 42:4,18 44:23 45:13 48:10 49:3 52:20,22 53:1 56:4 60:2,6 60:15 61:18 62:4 62:12 65:19,22 66:3 69:20 71:14 73:20 74:15,16 75:3 77:8,17 78:1	78:9 79:9 80:18 82:4 85:11,22 86:2,18 90:11 92:21 95:8 96:12 97:18 98:10,19 99:12,17 100:18 100:22 101:15 102:9 103:14,17 103:25 104:7 105:12 106:6 108:13,25 109:5,7 109:25 110:23 111:8 114:25 118:15 120:15 121:1,5,19 123:8 125:7 131:4 133:21 134:9,15 134:16 135:7,9,14 135:14,18,20 136:17 138:10 140:1,23 142:12 148:15 149:16 151:20 155:22 159:25 162:22 165:15 168:3 169:4 171:18 176:25 186:22 187:6,14 191:13 191:19 196:25 198:23 199:3 205:4 206:12 211:3,7 218:25 226:19 227:17 230:11 231:1 232:5 234:6 236:13 239:25 251:13 255:16 256:10 258:11 259:25 262:5 266:2 274:5 timeframe 15:23 17:5 28:19 35:11 86:25 112:21 136:3 161:7,16 162:9 187:13,24 248:5	timeline 64:25 timer 134:14 140:5 times 8:2,3 82:23 83:7 89:24 102:4 102:14 109:18 113:5 119:19,24 128:10 141:25 142:9 156:12 159:16 192:11,15 209:17 245:14 251:16 268:21 timeto 138:8 timetofailure 139:1 timing 145:16 tiniest 242:25 tired 173:18 title 22:9 48:10 83:20 208:5 274:6 titled 60:10 136:24 240:7 tjb 1:2 today 10:16 99:10 135:10 159:8 162:25 168:14 172:1,9 179:19 188:10,21 194:5 210:10 220:21 229:3 234:2 told 28:19 99:4 138:21 165:11 175:6 246:18 247:1 tollgate 259:17 260:1,2 tom 22:23 84:6 113:4 122:8 143:18 157:15,18 157:20 158:9 163:2 225:14 250:3 261:16 263:10 toms 189:11 tool 177:9 226:10 231:21 tools 109:4 151:22 178:3,3,5	top 85:2 124:22 203:10,10 204:9 205:22,24 213:3 218:12 219:14 221:1,3 229:9 231:25 235:4 250:9 251:13 252:16,20,23 255:24 259:15 261:1 264:3 topic 81:5 84:23 91:18 175:25 189:22 249:21 topics 123:13 130:25 188:20 total 64:7 65:9 86:5 220:6 totally 173:6 touch 190:19 touched 21:5 42:21 70:22 touching 179:18 tough 219:5 tour 225:6,7 tout 242:3,6 town 160:2,2 162:5 track 193:1 tracked 119:1 tracking 94:12,25 118:2 119:21 tracks 118:3 trade 26:3 trail 209:6 trailer 196:9,11 trailers 196:11 training 200:25 transcript 274:5,11 transcripts 25:4 transfer 68:23 transferred 64:10 transition 129:11 129:16 transitioned 162:23 transmitted 207:6 travel 173:19 travis 261:14,16,18	treated 141:22,23 treatment 142:10 253:2,4,7 trend 44:2 118:13 118:25 trends 118:2,3,6 trial 270:7 tried 57:25 58:1 132:22 209:5 trouble 179:7 true 107:2 113:18 115:21 138:10 140:9,11 199:17 254:9 274:10 truly 52:18 247:11 truth 7:8,8,9 122:18 127:11 206:20 244:14 252:21 258:20 274:7,7,8 try 10:17 11:7 36:14 95:6 128:17 134:14 144:20 147:9 167:1 185:7 254:16 trying 12:9 45:9 58:16,17 67:18,25 124:8 136:12 152:15 157:22 163:12 174:23 179:4 180:22 181:21 183:20 187:12 191:7 198:13 228:10 233:15,25 241:16 252:1 253:14,18 254:3,8 256:11 266:20,21 273:4 ts 181:20,24 214:12 tube 177:9 179:5 198:1,2 243:9 tubing 9:11 15:7 18:5 25:25 28:4,6 28:20,24,24 29:21 29:24 30:6 31:2 34:5 35:7,14,23
---	--	--	--	--

36:4,16 37:19	230:23 231:3	107:6,7 141:22	98:12,16 127:7	57:10,12 73:7
38:7,10,14 40:12	235:12,18,24	154:25 157:15	149:22,24 153:18	112:17 128:8
40:16,25 41:9,21	238:12 242:25	158:8 179:18	159:4 181:19	134:5,25 135:5,12
41:22,24 42:22	243:1,2,5,14,24	183:9 242:6	204:17 227:21	135:13,22 136:8
43:4 44:11,15	244:17 245:25		234:6,20 235:8	137:25 138:3
45:18 46:15 47:1	246:7,12,16,20	U	243:1 245:7,22	139:18 140:1,15
48:14,24 51:4,17	247:3 250:8	u 45:10,10 225:18	250:21	177:9 179:9,10,19
52:24 53:15,21	253:16 255:16,17	uhhuh 10:15 15:12	understood 11:8	186:17 194:13
54:7,8,9 55:1,5,7	255:18 256:11	40:9 45:4 47:24	165:13 177:16	196:21 200:18
55:13 56:20 57:2	257:12 258:3	49:19,22 55:2	245:20	215:17 226:6
57:5,7,15,17,18	261:13 265:3	64:2 74:6 77:18	undertake 46:9	231:21 236:6
57:21,25 58:4	268:20	78:13 90:2 99:1	undertaking 76:2	240:23
59:10 62:17 70:12	tubings 115:17	99:14 100:14	underway 167:5	user 214:1 270:17
73:10,18,23 74:18	231:11 243:18	103:15 104:4	unfortunately	users 194:13 214:9
74:22 83:16 88:4	tucson 203:20	105:8 108:17	180:24 208:12	uses 111:15 128:2
89:20 98:1,8 99:3	turn 60:8 63:23	114:15 127:25	union 176:19	usually 21:15 92:4
99:16,23,24 100:1	64:23 75:22	130:3 151:9	180:13	95:11 96:14
100:5,20,25 101:7	139:17 193:10,16	188:19 208:25	unique 31:25 32:5	100:18 103:3
101:13,20 102:11	208:18 244:22	222:6 232:17	united 1:1,12 38:3	106:9 115:19
102:22 103:2,7	turned 247:12	238:7 243:10	99:3 124:6,15,18	124:1 141:23
105:10,25 109:22	turning 74:4	260:9	124:20 147:23	147:17 160:21,22
110:15 114:11,23	two 8:3 14:10 16:5	uhuh 124:25	148:1 159:9	160:24 168:23
115:3,14 116:4,15	19:17 45:8,11	264:14	160:20 161:15	169:1,11 174:5
117:23 118:14	86:7 92:5 102:21	ultimately 43:24	198:4 245:5,19	192:5 217:23,24
120:7,9,13,16,19	109:2 111:6	132:21 170:9	249:15 268:10,12	226:11,12 268:16
120:23 121:6,22	117:10 124:20	176:1 227:3	268:14 269:1	uv 45:22 131:24,25
122:1,25 126:17	125:23 132:7	unacceptable 64:16	universal 147:24	133:19 231:11,11
127:18 129:2	174:6 178:12	uncharted 70:7	universe 270:2	231:13 236:5
134:5,9,10 136:19	187:19 191:4	uncommon 69:17	university 11:19	237:8
137:13,16 138:14	197:3 220:1	77:7,10 78:20	12:7	
138:18,21 140:11	223:13 245:25	91:20 92:7 114:23	unrelated 215:1	V
141:12 142:18	266:22 267:24	understand 8:17	unseat 192:10	v 1:6,18
143:11,17 144:7,9	twominute 266:23	11:5 34:24 36:1	unseated 192:8	valentine 79:25
144:10,25 145:20	twopage 239:17	67:14,25 71:17	unusual 69:19	80:8 81:1,10
145:23 146:3,23	260:24	72:3 74:20 75:2	180:19 213:22	valid 53:12
147:2 148:4,15,17	type 28:5 30:16	77:15 98:16	upc 147:24 148:13	validity 52:14 62:1
149:2 150:12	118:11 147:5	103:21 109:1	update 82:2 85:6	66:24 67:2 89:25
151:21 153:20	154:4	115:25 121:16,22	updates 82:1	value 46:18 88:8
155:24 161:10	types 154:13	125:24 127:6	upfront 234:15	220:6
172:20 173:1	typewritten 274:9	130:7 138:20	upgraded 194:7	valued 240:7
176:5 177:8,10	typical 238:12	167:5 186:5 252:7	upinor 198:5	valve 95:2 109:23
179:1,2,3,18,21	typically 27:15	understanding 9:7	uponor 235:18,22	117:8 122:7
179:23,24 185:5	28:3 54:11,20	10:10 27:13 50:6	246:9	146:19
193:14,15 197:24	57:20 59:5 62:23	67:15 69:8 74:11	upper 222:21	valves 144:5,13
201:21,21 202:1	70:14 94:21	74:25 75:6,9,19	ups 196:13	171:1 248:14,18
212:7 225:8	104:11 105:5	94:19 97:22 98:11	use 41:5 53:16	vanguard 27:6 28:6

vans 196:11	149:7	133:8 149:23	216:23 234:21	87:14,22 90:23
variability 69:25	visits 27:3 109:17	159:2 165:4 175:7	240:8 266:20	101:23 102:1
75:3,5 126:6	110:4,5,8,9	178:11 193:2	271:9	104:2 110:13
271:14	127:21 149:21	201:20,24 206:8	wasteful 136:18	116:5 119:1 123:2
variable 142:5	visone 36:13	206:14 213:20	water 44:3,4,23	129:7 145:18
variables 74:11	visual 229:25 231:7	217:4,6 240:13	45:1 92:23 98:9	165:2 170:14,18
146:8 179:8	voice 92:17	250:17	100:1,21 101:2,2	173:18 175:2
variation 60:22	voiced 90:3	wanting 46:7 69:2	106:5,6 109:22,23	190:6 191:15
74:14,17 75:8,10	void 147:7	97:6	109:24 111:7,9,10	200:20 217:19
75:17,18,20	volgstadt 252:11	wants 219:3 234:25	111:17,18,18,22	220:4 225:16
varied 118:16	volume 186:12	warehouse 193:1	111:22 112:2	239:7 242:19
varies 241:8		210:18	115:17,18 116:3	246:20 247:4
various 222:4	W	warn 146:15	129:6 134:16,17	249:11 251:20
235:16 249:14	wacker 2:10	warned 248:24	135:1,6,23 136:16	256:17 263:23
252:3	wait 202:16 217:1	warning 248:16	136:19 137:25	272:1,22 274:13
vegas 141:12	waited 218:25	warranties 147:7	138:3 141:2,4,7,9	ways 113:19
vendor 176:12	waiting 156:22	152:23 154:25	141:9,11,18,22,24	website 146:15
180:5	191:18 202:15	warranty 4:20	142:2,7,10,22,24	wed 31:20 51:20
vendors 18:8	224:3	95:24 119:5	143:5,6,13,20,23	74:23 81:25 82:23
176:15,17,18	wall 103:3 201:22	150:15,20,22,25	144:2,4,15 146:11	83:4 115:3 138:15
180:4 183:14,22	243:1	151:17,20,24	146:12,14,16,16	147:3 169:20
206:18 207:11	want 10:12 18:23	152:5,7,11,20	147:1,3,8 148:13	178:7 202:12
veracity 53:17	24:23 39:1 46:1	153:6,11,17,18	148:20 149:4,5,6	216:19
verbally 10:25	47:7,25 48:2 57:8	154:3,8,10,17,20	149:8,10,12	wednesday 6:5
version 155:4	57:10,12 69:1,5	155:8 165:17,18	158:18,25 159:12	48:2 252:3
versus 7:16 31:3	70:14,17 71:7	165:24 166:4	160:3 161:5,13,17	week 82:23 83:7
36:13 68:4 114:19	96:10 97:12	267:17,19 268:5,6	161:19,25 179:25	194:24
142:25 205:8	102:25 103:1	272:22 273:6	180:1 188:22	weighed 185:20
231:5 234:3	105:4 107:1 117:3	warren 163:16	189:8 200:13,14	wellregarded 53:7
vetted 249:20	119:16 123:7	257:18,18 258:7	200:17 213:16,17	53:10
vice 21:13 195:24	127:6 130:13	wasnt 16:22 47:16	213:25 215:5,8,8	went 12:13 13:21
208:5 218:22,24	131:6 145:6 158:6	47:16 49:8 54:5	215:9,16,18,19	31:23 37:10 44:21
viega 134:10 198:3	160:5 164:10	66:2,13 71:1	233:3 240:24	57:16 92:21 97:6
246:10 256:10,17	167:5 179:18	84:22 85:2,4 86:4	241:3,4,6 247:18	109:7,25 114:25
view 66:23 102:12	202:2 203:2	87:21,21 88:9,9	247:23 248:9,17	121:19 145:9
121:24 234:20	211:24 221:14	96:11 103:3,10	248:23,25 249:5	149:13 157:3
246:21 247:4	242:7 270:8	110:22 111:19	249:17 253:3,22	162:22 173:4,9,19
248:8,21	wanted 20:21,22	116:15 127:13	253:25 255:10	175:21 217:16
visibility 97:13,21	21:18,20 30:8,18	128:11 133:7	268:10,14,16	218:23 230:7
visit 27:5 106:18	32:22 33:16 46:4	138:10 144:9,17	waters 141:23	260:5
110:16 112:23	46:6 54:21 70:23	155:15,16 163:6	146:25	west 2:10
114:8,12 128:2,7	71:19 73:15 88:8	163:19 172:5	waterworks 146:15	western 160:24
143:17 149:13	91:19 92:25 97:11	178:15,15,23,24	waverly 1:13	168:10
visited 27:1,6 33:14	97:11,12,13,15,20	181:22,23 184:13	way 24:4 32:21	weve 53:3,3,3 55:3
149:21	98:10 117:3	184:13 185:17	36:2 41:8 51:21	59:21 71:2,2
visiting 111:11	123:14 129:10	196:3,4 209:11	67:7 68:15 69:8	89:18 100:25

102:25 107:5 109:2 119:19,20 120:25 131:10 134:11 136:15 142:13 147:4 158:24 159:12 183:10,11,12,12 191:12 193:7 194:6 197:8 199:12,19 205:20 207:13 214:17 216:10 217:21 218:8 220:24 222:1,19 224:8,20 229:6 233:2 239:16 243:25 247:17 249:18 253:24 255:22 256:23 262:24 264:18 268:18 whats 11:16 50:6 55:25 58:19 94:15 94:18 151:20 171:6 196:8,10 203:5 204:18 219:23 234:6 238:19 250:21 259:13 260:23 265:11 wholesale 38:2,3 150:11 192:23 208:17 218:19 222:11 260:16 wholesaler 210:22 210:24 250:14 wholesalers 192:23 193:9,16 210:23 211:1,20 260:12 whos 48:6 107:23 163:2 200:20,21 208:2 218:24 220:4 251:1 wife 219:18 wild 166:11 willingness 27:3 wilson 125:11	169:8 window 51:12 271:14 windustrial 208:10 winnelson 232:13 winwholesale 208:3 208:8 210:1 218:21 219:9 220:5 221:14 winwholesales 219:13 wisconsin 225:19 withstand 148:16 254:13,20 255:14 witness 6:10 7:10 88:23 274:4 wondering 75:11 113:23 238:11 wont 148:21 wood 107:22,23,24 woodworker 157:24 word 148:8 193:17 236:8 words 90:23 112:13 137:15 148:4 155:19 204:19 work 27:3 32:12 74:3 80:2 133:11 144:11 145:3 157:25 161:12 190:19 196:6 258:4 worked 10:6 59:9 81:20 154:17 180:25 188:13 229:12 working 12:13,15 12:20 13:24 15:19 16:8,10 83:6 117:8 122:7 125:21 146:19 158:8 168:7,14 174:8,17 182:5 206:5 248:18 250:18 269:22	workmanship 154:6 works 94:19 191:15 200:23 world 53:15 198:12 209:12 worryfree 139:23 worth 202:5 234:19 wouldnt 13:6 32:7 54:4 67:12 69:14 80:25 91:1 112:18 120:1 143:22,22 163:19 184:10 204:24 205:5 207:5 214:7 243:17 248:7 253:21 255:17,19 255:20 wound 184:16 wow 186:9 wrap 267:6 write 155:19 226:20 252:12,17 writes 60:16 68:8 74:10 76:2 235:5 writing 93:23 154:19 170:9 231:25 234:8 250:23 266:7 written 4:19 48:11 60:11 67:8 93:11 113:14 155:16,16 164:19 168:25 169:10,12 185:9 252:9 wrong 152:9 178:21,24 180:18 208:9 214:13,16 215:3,22 216:18 218:18 221:12 222:10 227:23 247:15 269:8,17 269:25 271:7 wrote 125:15 130:23 150:7 235:16 250:3	252:18 266:14 273:2 wtiness 7:5 <hr/> X <hr/> xxxxxxx 7:23 <hr/> Y <hr/> yeah 10:11 23:14 23:16,18 29:2 30:12 31:19,25 32:13,16 38:5 41:7,18 42:5,7,9 45:15,15,22,24 46:24,24 55:24,24 55:24 56:12,23 58:5,12 63:4,19 63:23 68:1 77:15 80:1,1 82:7,7,14 83:17,24,24 84:5 86:22 88:1,20 93:20,24,24,25 94:2 96:14,25 97:2 98:14 99:11 102:1,1 105:4 107:4 108:5 110:5 112:1,1 113:16 115:11 116:4,12 117:24 118:3,7 120:3 123:6 124:17 126:18,18 127:19 130:24 131:2,8 132:7,19 134:7 142:23 143:25 145:6 146:1 147:22,25 148:15 150:6,16 150:18 153:4 154:24 160:4,5 163:15 164:1 167:18,23 169:11 170:11,13,22 172:8,8 175:18,20 175:20,20 180:9 183:18,18 185:4 185:25 186:25	188:6,17,24 193:12 197:2,18 199:12,12 200:4 201:17 202:24 204:20,23 211:13 213:9 214:22,22 217:14,14,14,14 219:22 220:3,14 221:21 224:18 225:2,11,12,12 227:2,2,8,11,13 228:9,16 229:17 233:10 235:19 239:1 241:20,20 243:3,3 253:12 255:21 256:8 261:8,22,24 262:4 262:9,9 263:6,6,8 264:25 265:21,25 265:25 266:3,3,6 266:12 272:24 273:2 year 10:7 11:20 12:9 31:24 56:20 62:13,14 65:4 76:23 87:9 102:14 113:7 118:16,17 132:23 151:22 169:14 170:4,4,4 200:15 219:16 220:1,2 224:23 225:13,15 247:9 yearandahalf 8:22 years 13:14 14:10 15:2 16:5 19:17 20:2 34:1 40:20 45:16 49:18 50:13 65:3,23,23 72:2 85:15 86:7,10,11 86:12 95:15 97:5 99:8 109:2 113:19 114:6 117:10 135:15 138:22 139:23 142:14 145:4 146:3 151:21,21 153:20
---	---	--	---	--

153:23 180:8,24 191:16,18 192:5 197:3,4 199:13 211:6 227:2 230:7 233:14,24 234:7,9 246:9 255:19,20 258:2 yellow 187:14 188:4,15 202:21 202:23,25 206:11 215:24 241:2,4 yesterday 24:22 youd 56:24 143:2 143:17 166:13 179:22 232:6 youll 7:3 98:18 165:5 205:15 212:24 youre 7:7 10:24 16:20 19:22 29:1 36:1 47:13 54:23 57:23 58:21 66:7 66:10,11 68:12 70:14 76:17 77:12 80:15 81:14 85:1 89:11 96:9 98:6 99:23 104:20 105:1 108:6 112:11,13 135:10 136:20 150:13 151:10 152:14 154:21 159:9,21 163:7 166:7 170:24 171:1 179:3,4 182:11 187:17 191:18 201:25 202:8 203:9,10 214:13 218:11 221:10 229:9 233:16 238:21 239:11 244:3 254:19,21 255:9 256:17 259:15,16 263:1 271:18 youve 10:13 11:17	56:15 89:23 114:5 115:15 135:10 150:4 159:7 167:3 184:4 192:8 199:20 202:3 210:10 241:6 265:14 266:1 <hr/> Z <hr/> zurn 134:10 198:3 246:10 256:10,17 <hr/> 0 <hr/> 0 223:6 253:2 00 6:6 000 220:12,13 01 274:24,25 06 45:8 08 132:2 <hr/> 1 <hr/> 1 4:13 5:9 44:19,19 46:1,5 47:21 48:2 68:18 131:22 132:22 134:21,21 135:13 136:13,13 137:1 139:25 189:12 223:6 229:10 253:2,2,4 253:4,6,8 256:12 10 199:21 100 38:18 127:13 131:23 132:4,13 134:13,16 135:11 135:18 136:7 147:4 199:3 204:21 242:24 255:10 259:9,10 270:15 1006 44:15 47:1 54:25 82:6 86:21 87:3,5,11 134:5,8 134:22 135:15 136:8 139:25 140:15 142:18 146:23 194:6,13	250:18,22 251:1 100873 205:23 105 255:11 107 4:16 11 123:7 161:6,16 251:12 1105 65:5 112090 256:25 116072 222:2 117408 199:22 117793 222:21 12 68:17 113:7 161:7,16 255:23 263:3 120 148:23 224:23 122 171:8 123109 167:16 123113 167:16 123118 171:8 125460 263:1 13 43:1 74:7 130 4:17 130903 216:12 131364 221:3 131367 221:3 132068 207:16 132070 207:16 133458 218:10 134644 229:8 134645 234:12 134646 233:12,19 134648 229:8 134691 244:2 134695 244:22 134697 244:2 135068 249:21 135070 249:21 135088 265:13 135089 265:13 135196 224:21 136 4:18 137871 1:2 14 75:22 15 88:25 102:14,15 203:6 267:7 150 4:19 148:23,24	153 4:20 15cv1124 1:14 16 197:5 238:20 1622 2:20 163 4:21 165 149:9 166 4:4 167 4:24 17 236:23,25 171 4:25 137:18 18 1:24 5:10 113:7 179:24 239:18,19 239:25 241:11 242:22 180 160:4 204:14 204:21 255:9 1807 197:23 185 255:10 19 11:22 201:5,8 274:24 19103 2:21 197 5:3 1976 12:11 1979 12:22,23 13:5 13:16 1983 13:17 1988 11:23,24 199 5:4 1990 14:17,24 1990s 99:7 1991 17:2 1994 15:3,11 1996 15:20 1999 15:9,25 19th 6:5 1rated 135:5,22 <hr/> 2 <hr/> 2 4:14 59:14,18,21 68:18 74:5,7 88:12 131:6 133:14 137:24 164:20 20 20:15 72:2 99:8 112:6 184:20 197:7 213:4	200 148:17 2000 17:3 29:7 242:5 2000s 187:3 2001 16:6,11 17:3,4 17:5 2002 17:9,12 2004 17:10,25 25:25 29:7,11,13 31:7 35:11,17 2005 40:25 64:21 65:4,16 2006 17:4,5 19:2,2 28:22,25 29:2,4,9 29:14 30:21 33:2 36:19 37:16 38:6 38:21 39:5 42:1 72:23 74:21 120:12 145:4,8,8 145:20 162:17,20 190:9 258:2,11 2007 161:12 162:9 2008 4:18 5:8 19:18 19:22 22:5 85:18 107:22 109:1,5 113:14 114:19 115:5 137:1 139:25 145:24 161:9,15 163:11 180:9 190:11,21 197:12 198:23 226:20 2009 4:15,24 60:1 61:19 80:8,13 81:2 125:2 167:24 169:4 190:11 2010 4:13 48:3,11 52:22,25 136:3,5 161:6,16 199:21 248:7 2011 5:5,6,9,10 149:16 187:13,24 188:16 201:8 202:14 203:11 224:13,13 229:10 232:6 233:22
--	--	--	---	--

234:8,14 235:17 237:12 239:18,19 239:25 241:11 242:22 244:5 2012 4:17,25 5:7,13 20:15 21:6 43:1 109:16 110:2,10 110:14 112:6,21 121:9,24 129:13 129:15 130:2 131:4 136:3,5 149:16 155:11 164:20 165:8 171:10,13,18 187:13,24 190:13 190:14 205:22 206:10 213:4 250:23 251:14 252:3 256:25 258:1 2013 29:25 30:6 43:2,10 86:16,17 112:7,21 114:19 116:25 187:24 216:14 218:11 221:4 261:2 263:3 2014 20:1 22:6 23:25 24:1 30:21 242:6 2015 224:23 265:24 2017 1:24 6:6 274:25 2020 274:24 2023 104:15 137:18 138:9 139:14 203 5:5 204 5:6 21 259:16 2103 259:16 211 2:10 215 2:22,23 22 107:22 244:4 2200 3:6 225 5:8 229 5:9 23 5:8 197:11	2345 3:6 239 5:10 24 5:13 136:19 256:25 244 5:11 25 46:5 127:4,6 134:14 135:1,13 135:23 136:17 140:6,19 151:21 153:20,23 188:2 197:7 233:22 261:2 273:14 250 5:12 256 5:13 26 234:14 261 5:14 263 5:15 264 5:16 265 5:18 267 4:5 27 5:6 203:11 235:17 270 4:6 272 4:7 2734 6:4 28 4:14 60:1 216:13 29 221:4 2922001 3:9 <hr/> 3 3 1:14 4:16 46:1 60:8,14 63:25 74:7 107:14,16 131:23,24 135:13 136:13,13 253:6 256:12 262:7,10 30 72:2 123:7 274:25 31 48:3 224:13 312 2:12 31944 197:11 31945 197:11 31st 50:22 32042 252:8,16 32043 252:8,23 32749 260:25	32750 260:25 33 259:14 3308 45:19 86:14 86:20 87:1,10,11 147:4 194:7,9,15 3308graded 131:11 350 220:12,13 360 204:14 <hr/> 4 4 4:17 68:18 74:7 130:15 139:18 140:24 237:12 40 39:24 211:5 40209 6:5 40s 139:12 411 199:22 44 4:24 167:9,13 170:15 173:10 45 4:25 171:7,15 46 5:3 197:9,14,21 4605714 3:8 464 218:10 46830 213:2 46831 213:2 47 4:13 5:4 199:20 199:23 48 5:5 203:7 49 5:6 204:10 <hr/> 5 5 4:18 63:25 75:23 131:23 132:4,11 132:15 133:23 134:1 135:10,12 136:13,14,22 251:14 252:3 253:2,8 259:17 260:2 261:20 262:6,9,12 50 5:7 22:19 62:13 131:23 135:6,12 138:21 205:14,17 205:18,21 211:5 222:16 247:8 255:19,20	500 2:10 214:3 220:1 5006 252:5 256:11 50year 60:19 138:8 139:1 51 207:14,17,21 52 211:23 212:3 213:1 53 216:11,16 5306 261:12,25 54 218:9,14 55 220:23,25 56 222:2,5 57 222:17,17,18,20 228:7 5705 205:25 58 5:8 224:21 225:1 59 4:14 5:9 229:7 229:13 232:12 234:23 235:16 <hr/> 6 6 4:19 5:7 150:2 205:22 267:8 272:18 60 5:10 239:17,22 242:21 600 220:1 60606 2:11 61 5:11 244:1,9 62 5:12 249:19,25 62269 264:19 62271 264:19 63 5:13 256:20,21 256:24 6301 239:18 6302 239:18 64 5:14 260:24 261:4 641082618 3:7 65 5:15 262:25 263:5 264:3 66 5:16 264:18,24 67 5:18 265:12,15 266:10	<hr/> 7 7 4:3,20 5:5 63:24 153:14 201:8 218:11 267:7 273:14 73 222:3 75 62:13 247:9 7501592 2:12 <hr/> 8 8 4:21 68:2 162:9 163:23 224:13 80 146:18 147:6,7 147:21 148:2 161:24 177:12 181:10,10 800 94:22 816 3:8,9 82 126:20 127:8 83 13:18,19,20 83111 223:15 85 127:13,14 850 204:24 86 13:19 87 13:20 874 205:23 8753000 2:22 8754604 2:23 876 138:3 197:24 198:1,1,8,8 88 126:20,20 127:8 <hr/> 9 9 6:6 64:23 90 31:5 127:14 260:2 900 204:24 246:19 247:2,10 9000 242:12 9001 241:12,19 96 15:22 99 15:22
---	--	---	---	--